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July 8, 2011

VIA UPS NEXT DAY AIR

U.S. Environmental Protection Agency
c/o Grace Co
77 West Jackson Blvd., (SE-5J)
Chicago, IL 60604-3590

RE: Zurn Pex, Inc.'s Response to 104(e) Request for Information for the Lusher Street Groundwater Contamination Site, Elkhart, Indiana

Dear Mr. Quadri:

Enclosed with this letter please find Zurn Pex, Inc.'s narrative response to the 104(e) information request for the Lusher Street Groundwater Contamination Site, in Elkhart, Indiana. Also enclosed is a CD containing PDF copies of the Appendix to the response with documents responsive to the 104(e) Request.

Tom Krueger previously provided an extension of time to July 8, 2011, for this response.

Thank you for your consideration in this matter. If you have any questions regarding this letter, please do not hesitate to let me know.

Sincerely,

QUARLES & BRADY LLP


Raphael F. Ramos

Enclosures

cc: Donald F. Kiesling, Jr. (w/encl.)
Tony A. Vogel (w/o encl.)

QB\13899962.1

US EPA RECORDS CENTER REGION 5



412917

**RESPONSE OF ZURN PEX, INC. TO USEPA 104(E) INFORMATION REQUEST
FOR THE LUSHER STREET GROUNDWATER CONTAMINATION SITE**

These responses were prepared by counsel for Zurn Pex, Inc. ("Zurn"):

Raphael Ramos
Attorney
Quarles & Brady LLP
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(414) 277-5000
Outside counsel for Zurn

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Attorney
Rexnord Industries, LLC
4701 West Greenfield Avenue
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Responses were based on a review of Zurn environmental records for the former U.S. Brass Corp. ("U.S. Brass") facility located at 1900 West Hively Ave., Elkhart, Indiana 56516 (the "Facility") and interviews with Facility personnel:

Craig Bowlby	Distribution Center Manager (2010-Present); Distribution Supervisor (1986-2010); Injection Molding Supervisor (1985-1986); Warehouse Supervisor (1980-1985); Lead in Warehouse (1978-1980); Inside Sales (1977-1978); Truck Driver (1976-1977)	Responsible for injection molding and distribution (Injection Molding Supervisor and Distribution Center Manager)
Tony Ferro	Maintenance and Production Supervisor (2008-2009); Group Leader (1999-2008); (Maintenance Technician 1982-1999); (Maintenance Trainee (1982)	Responsible for floor management and management of chemicals (Maintenance and Production Supervisor)
Jim Konzel	Operations Manager / Plant Manager (2002-2009)	Responsible for compliance with environmental and safety regulations
Richard Jaeckel	Operations Manager / Plant manager (1992-2003)	Responsible for compliance with environmental and safety regulations

Inquiries into additional records and sources of information did not reveal additional information responsive to the request for information.

OBJECTIONS

Zurn objects to these information requests as overbroad, vague, and burdensome to the extent they seek information not relevant to the purposes set forth in CERCLA § 104(e)(2). The requests are overbroad as to time (or lack of specified time frame), subject matter, and other concerns. The requests are also vague as to the scope of the requests.

By providing this information, Zurn is not, and shall not be construed as, admitting in any way that it is liable or responsible for costs of any sort relating to the Lusher Street Groundwater Contamination Site. Zurn expressly reserves all rights and defenses at law or equity that may apply.

The information provided herein, subject to inadvertent or undisclosed errors, is based upon, and therefore necessarily limited by, records and information still in existence, presently recollected, and thus far discovered in the course of preparing these responses. Zurn reserves the right to provide further information should additional information become available at a later date.

RESPONSES

- 1. State the dates during which you or your company have owned, operated, or leased a facility or any part thereof located within the boundaries of the Site and provide copies of all documents evidencing or relating to such ownership, operation, or lease arrangements (e.g., including but not limited to purchase and sale agreements, deeds. Leases, etc.).**

Response to Request No. 1:

The Facility was constructed by Phillips Industry in the early 1970s on land that had previously been used for agricultural purposes. Haffner Supply, Inc. purchased the property in 1975, and U.S. Brass purchased the Facility in 1978. At the time the Facility was purchased by Haffner Supply, Inc., it was generally empty and used solely for distribution. The Facility was used solely in that capacity until it began injection molding operations in 1980. In the early 1980s, the Facility incorporated extrusion into the processes performed onsite. The Facility ceased injection molding operations in the early 1990s. In 1998, U.S. Industries, Inc. (parent company to U.S. Brass) acquired Zurn Industries. U.S. Industries, Inc. was renamed Jacuzzi Brands, Inc. in 2003. Jacuzzi Brands, Inc. sold the plumbing component of its business, including U.S. Brass and Zurn Industries, to Rexnord in 2006. In 2007, U.S. Brass was renamed Zurn-Pex, Inc. Zurn-Pex, Inc. owned and operated the Facility until it shut down manufacturing operations in 2009. Zurn-Pex, Inc. remains the owner and operator, but the Facility has been repurposed from its original manufacturing operations. The Facility is now used as a warehouse and distribution center for ready-for-sale brass and plastic fixtures and plumbing.

Since the Facility has been controlled by U.S. Brass and its successors from 1983, the remainder of responses are from 1983 to the present.

Appendix A contains a copy of a 2003 Mortgage for the Facility. Zurn reserves the right to provide further information should additional information become available at a later date.

2. **Did you or any other person or entity ever use, purchase, store, treat, dispose, transport or otherwise handle any material containing chlorinated solvents, including but not limited to, trichloroethylene (TCE); trichloroethane (1,1,1-TCA); dichloroethene (trans 1,2-DCE; cis-1,2-DCE; or 1,1-DCE) or tetrachlorethylene (PCE) at a facility within the boundaries of the Site? If the answer to this question is anything but an unqualified "no," with respect to each facility identify:**
- a) **the chemical composition, characteristics, physical state (e.g., solid, liquid) of each material;**
 - b) **who supplied the material;**
 - c) **how, when, and where the material was used, purchased, generated, stored, treated, transported, disposed of or otherwise handled;**
 - d) **the quantity of such materials used, purchased, generated, stored, treated, transported, disposed of or otherwise handled;**
 - e) **all supervisory personnel for areas where chlorinated solvents were identified above. For each person identified, indicate the years during which they were a supervisor and, to the best of your knowledge and belief, their duties and responsibilities.**

Response to Request No. 2:

From 1983-2009, the Facility was used to fabricate polybutylene or cross-linked polyethylene pipe by blending pellets with a catalyst, extruding the mixture, and pulling the pipe through a water bath. The Facility then cut the pipe, printed lettering on the pipe, and cured the pipe with steam. The Facility was a plastics processing plant involved in injection molding and extrusion of thermoplastics; no chemical processing was performed at this plant. The Facility has carefully identified and tracked chemical usage at the Facility. Material Safety Data Sheets ("MSDSs") that were created and submitted pursuant to OSHA regulations identify 166 chemicals that are used in the Facility.

Of those chemicals, only five have any reference to chlorinated compounds and only two aerosol products contain chlorinated solvents specifically identified in

the request for information.¹ A Safety Kleen parts washing station was also located onsite and is described below, although the chemical composition of the solvent used is unknown. In any event, the use of chemicals containing chlorinated solvents was minimal. As described below in more detail, the chemicals were contained in aerosol cans or cleaning solvents and were used minimally in applications where the chemicals were either consumed or evaporated. At no point during our review of documents and interviews with Facility staff did we identify any information indicating that a release, spill, or leak of such substances had ever occurred at the Facility.

These facts were confirmed by interviews with company employees and review of Facility documents. From 1992 through 2003, the Operations and Plant Manager position was occupied by Richard Jaeckel. Mr. Jaeckel was primarily responsible for compliance with environmental and safety regulations. Mr. Jaeckel was replaced in 2003 by Jim Konzel who retained that position until the Facility ceased manufacturing operations in 2009. The supervisor responsible for floor management and management of chemicals was the Maintenance and Production Area Supervisor. That position was last occupied by Tony Ferro who was with the Facility from 1983 through 2009. Craig Bowlby is the current Distribution Center Manager and has been at the Facility since 1976. Each was interviewed in connection with this response. Based on those interviews as well as review of company documents, we would note the following:

Tap Magic Cutting Fluid

The Facility used a small amount of Tap Magic Cutting Fluid, consisting of 80% inhibited 1,1,1-trichloroethane, 10% petroleum distillate (aliphatic oil), and vegetable oil, essential. The MSDS identified The Steco Corporation as the manufacturer of this substance. Tap Magic was purchased from MSC Industrial Supply center or McMaster-Carr. According to interviews with Jim Konzel and Tony Ferro, use of Tap Magic Cutting Fluid was minimal. Each of the maintenance employees had a can approximately 6-8 ounces in size in their toolbox. Drops of Tap Magic Cutting Fluid were occasionally applied to drill bits when necessary to drill through metal. Heat from the drilling process likely volatilized the chemical. Mr. Ferro emphasized that, on average, only about one can was replaced per year. The MSDS sheet for this substance is contained in Appendix B. There was no disposal of full or partially-full cans. Based on interviews with staff employees, no spills or leaks of this substance occurred.

Open & Shut

The Facility used a small amount of Open & Shut, an aerosol product treated of a cylinder of compressed gas, consisting of 50-75% trichloroethylene, 5-20%

¹ Chemical refrigerants were also used onsite, but they are not addressed below based on our understanding that they are halogenated solvents not within the scope of this request. In any event, use of chemical refrigerants was limited to aerosols or for the Facility's cooling water system. A release from that system would likely be in gas form given the low boiling point for the chemical in question.

petroleum distillate, 5-20% petroleum oil, and 1-5 percent carbon dioxide. Open & Shut was purchased from Drummond American Corporation in six can lots. Open & Shut was used as to de-rust/lubricate frozen bolts. The substance was used sparingly. Mr. Ferro indicated that approximately six 15 ounce cans of Open & Shut were kept in a closed cabinet in the maintenance area. Employee frequency of exposure to Open & Shut was limited to 10 minutes per month and use of Open & Shut was in amounts of 1.0 ounce per month. The MSDS sheet for this substance is contained in Appendix C. There was no disposal of full or partially-full cans. Based on interviews with staff employees, no spills or leaks of this substance occurred.

Switch and Contact Cleaner

The Facility used minimal amounts of Switch and Contact Cleaner, an aerosol product treated as a cylinder of compressed gas, containing 31-50% trichlorotrifluoroethane, 31-50% dichlorodifluoromethane, and 11-30% 1,1,1-trichloroethane. Used to clean relays and contact points on the extruders. The MSDS identified Crown Industrial Products, Co., Inc. as the manufacturer of this substance. Use of Switch and Contact Cleaner was limited to 1.0 pints per year, with employee frequency of exposure limited to 10 minutes per month. The MSDS sheet for this substance is contained in Appendix D. There was no disposal of full or partially-full cans. Based on interviews with staff employees, no instances of spill or leaks of this substance occurred.

Cond-X Aerosol

The Facility used minimal amounts of Cond-X Aerosol, an aerosol product consisting of methylene chloride, ethanol, propane, isobutene, and IRR/CARC 7,8 in undefined percentages. Cond-X Aerosol was used as to de-rust/lubricate frozen bolts. Cond-X Aerosol was purchased from Certified Labs, Division of NCH Corporation as the manufacturer of this substance. Approximately twelve cans were kept in a closed cabinet in the maintenance area (Certified Labs required purchase of cases containing twelve cans). According to Mr. Ferro, use of this chemical was minimal. Use of Cond-X Aerosol was limited to 3.0 ounces per day. The MSDS sheet for this substance is contained in Appendix E. There was no disposal of full or partially-full cans. Based on interviews with staff employees, no instances of spill or leaks of this substance occurred.

Loctite Antiseize Lubricant

The Facility used small amounts of Loctite Antiseize Lubricant, a metallic liquid consisting of 60-65% methylene chloride, 20-25% mineral oil, 5-10% copper, 5-10% graphite, <3% aluminum, and <1% silicon dioxide. Used on bolts in the extruder. Mr. Bowlby indicated that use would be limited to less than 1.0 ounces per month. The MSDS identified Loctite Corporation as the manufacturer of this substance. Approximately twelve eight ounce bottles were kept in a closed cabinet in the maintenance area. Employee exposure to Loctite Antiseize

Lubricant was limited to 30 minutes per day. The MSDS sheet for this substance is contained in Appendix F. Empty cans were disposed of in the Facility's dumpsters. There was no disposal of full or partially-full cans. Based on interviews with staff employees, no instances of spill or leaks of this substance occurred.

Safety Kleen Parts Washing Station

Documents and Facility interviews also identified the presence of a Safety Kleen parts washing station. Interviews with Mr. Konzel, Mr. Ferro, and Mr. Bowlby indicated that use of cleaning solvent at the Safety Kleen station was minimal. The chemical constituents of the cleaning solvent is unknown. Cleaning solvent was stored in a reservoir within the station and discharged from a cleaning brush. Discharged solvent was poured into a drain in the station which circulated the solvent back to the reservoir for reuse. The cleaning station was entirely self-contained and used only occasionally. When the solvent could no longer be reused, Safety Kleen visited the Facility and serviced the station, replacing the used solvent. Such servicing and replacement initially took place every month, but was rescheduled to only a quarterly or biannual basis based on lack of use. Mr. Konzel indicated that the reservoir storing the solvent was approximately five gallons in size and that annual use of such solvent was limited to approximately 10-20 gallons per year.

Employee interviews indicated that, unless otherwise noted, use of the chemicals discussed above was relatively consistent throughout operation of the Facility as a manufacturing center. Provided in the Appendix are copies of responsive MSDSs for the Facility. Zurn reserves the right to provide further information should additional information become available at a later date.

3. **Identify all past and present solid waste management units (e.g., waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) at each facility you or your company have owned, operated, or leased within the boundaries of the Site. For each such solid waste management unit, provide the following information:**
 - a) **a map shows the unit's boundaries and the location of all known solid waste management units, whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units;**
 - b) **the type of unit (e.g., storage area, landfill, waste pile, etc.) and the dimensions of the unit;**
 - c) **the dates that the unit was in use;**

- d) the purpose and past usage of the unit (e.g., storage, spill containment, etc.);
- e) the quantity and types of materials (hazardous substances and any other chemicals) located in each unit;
- f) the construction (materials, composition), volume, size, dates of cleaning, and condition of each unit; and
- g) if unit is no longer in use, describe how was unit was closed and what actions were taken to prevent or address potential or actual releases of waste constituents from the unit.

Response to Request No. 3:

Zurn has identified four potential solid waste management units, without making any assertions as to whether they would qualify as Solid Waste Management Units as defined by the federal Resource, Conservation, and Recovery Act, 42 U.S.C. §§ 6901 *et seq.* The first unit is a used oil storage shed. The second unit is a set of solid waste storage dumpsters. The third unit is a former waste oil underground storage tank. The fourth unit is a former septic tank.

The used oil storage shed was entirely enclosed with a concrete floor and provided secondary containment for storage of waste oil. The waste oil was generated when the Facility changed the oil in its extruders and injection mold machines. Oil was the only substance stored in the shed. Beginning in the mid-1980s an aboveground tank was used to store waste oil. The tank was located inside the shed and was elevated and placed on a spill pad consisting of a large, heavy-duty, plastic box. The top of the spill pad was covered with grating which was intended to allow any leakage or spillage from the drums to collect inside the spill pad. The waste oil was pumped out by Safety Kleen and hauled offsite. The tank was owned and removed from the site by Safety Kleen in the early 1990s. After that point, four 55-gallon drums were used to collect and store waste oil. The drums were elevated and placed on a spill pad consisting of a large, heavy-duty, plastic box, approximately 24" (h) x 6" (w) x 6" (l) in size. The top of the spill pad was covered with grating which was intended to allow any leakage or spillage from the drums to collect inside the spill pad. According to Mr. Konzel, no waste oil ever escaped into the spill pad itself. Drums stored and collected waste oil until the drums were collected and replaced with empty drums by a local Standard oil dealer (Howard Industries of Indiana Inc., Berreth Oil, Safety Kleen, and Stolte Enterprises, Inc.). The spill pad appears to have been in use until the Facility ceased manufacturing operations in 2009. The drums and spill pad were collected by the local oil dealer. The shed had been created solely to house the drums and spill pad and was demolished after the Facility ceased manufacturing.

The solid waste storage dumpsters are large metallic dumpsters used to contain plastic scraps, refuse, and other garbage from the Facility. The dumpsters have covers and are not open to the air, but are located outside of the Facility. The dumpsters are emptied and the contents disposed of by Himco Waste Away Services two times a month. No chemicals are, and in the past were not, disposed of in the dumpsters. The dumpsters have been used since the Facility was constructed and continue to be used through the present.

The Facility also formerly housed a metal unleaded gasoline underground storage tank on the eastern portion of the property. The gasoline tank was in place prior to 1978, although the exact installation date is unknown. The underground gasoline tank was used to fill up sales vehicles onsite. According to Mr. Bowlby the tank was removed in the mid- to early-1980s. A local construction company emptied and removed the tank. There is no indication that chlorinated solvents were ever stored or used in connection with this unit.

The former septic tank was installed some time before 1982 although the installation date was unknown, likely at the time the building was constructed. The former septic tank was in use until around 2001 when the Facility switched over to the city sewer system. Mr. Ferro estimated that the tank was 1,500 gallons in size. Water would go through a dry well made of concrete and lined with gravel and leach back into the ground. Upon closure, the septic tank was hauled offsite. A holding tank which is still in use was installed upon connection to the city sewer system. Mr. Ferro indicated that the holding tank is made of cement and contains approximately 1,500 gallons. We believe the septic tank was used only for sanitary waste and not process waste of any kind. There is no indication that chlorinated solvents were ever stored or used in connection with this unit.

A map of the Facility identifying the location of these units is provided in Appendix G. Zurn reserves the right to provide further information should additional information become available at a later date.

4. **Identify all leaks, spills, or releases into the environment of any chlorinated solvents or materials containing chlorinated solvents that have occurred at or from any facility you or your company have owned, operated, or leased within the boundaries of the Site. In addition, identify:**
 - a) **when, where, and how such leaks, spills or releases occurred;**
 - b) **the amount of each leak, spill or release;**
 - c) **activities undertaken in response to each such leak, spill or release, including the notification of any agencies or governmental units;**

- d) **investigations of the circumstances, nature, extent or location of each leak, spill or release, including the results of any soil, water (ground and surface), or air testing undertaken; and**
- e) **all persons with information relating to these leaks, spills or releases.**

Response to Request No. 4:

Zurn has no knowledge or information responsive to this request. Staff interviews confirm that, to the best of their knowledge, no leaks, spills, or releases occurred at the Facility. Zurn reserves the right to provide further information should additional information become available at a later date.

- 5. **Provide copies of all local, state, and federal environmental permits ever granted for any facility (or any part thereof) you or your company have owned, operated, or leased within the boundaries of the Site (e.g., RCRA permits, NPDES permits, etc.)**

Response to Request No. 5:

The Facility was the recipient of an Industrial Wastewater Discharge Permit from the City of Elkhart Public Works & Utilities, Permit No. 96-01. Copies of the permit are provided in Appendix H. No other permits appear to have been issued for the Facility. The Facility's application for the wastewater discharge permits demonstrate that no chlorinated solvents were identified in the Facility's wastewater. Copies of the permit applications are provided in Appendix I. A recent Self-Monitoring Report included sampling that returned non-detects for chlorinated solvents in Facility effluent. A copy of that report is provided in Appendix J.

Zurn reserves the right to provide further information should additional information become available at a later date.

- 6. **Identify any persons or entities, other than those responding to this information request, that may have information about the history, use, purchase, storage, treatment, disposal, transportation or handling of any materials containing chlorinated solvents at any facilities in the area identified as the Lusher Street Ground Water Site.**

Response to Request No. 6:

Employee interviews indicated that a nearby scrap yard, Sturgis Iron and Metal may be a potential source of contamination. A nearby railyard may also have

contributed to historic contamination. Zurn reserves the right to provide further information should additional information become available at a later date.

7. **To the extent you believe that another person is responsible for any leaks, spills or releases into the environment of any chlorinated solvents or materials containing chlorinated solvents at or from any facility you or your company have owned, operated, or leased within the boundaries of the Site, identify:**
- a) **the name and address of that person or persons;**
 - b) **when, where, and how such leaks, spills or releases occurred;**
 - c) **the amount of each leak, spill or release; and**
 - d) **the detailed basis for your belief that each such person is responsible for leaks, spills or releases, including any transactional documents, reports, or other documentation supporting your belief.**

Response to Request No. 7:

Sturgis Iron and Metal was located on Lusher Avenue. That facility received scrap and other trash and operated a large super-shredding machine.

A nearby railyard may also have contributed to contamination. There is some anecdotal information to the effect that diesel compounds were discarded in the railyard in the 1970s, but Zurn has no further details in that regard. Zurn reserves the right to provide further information should additional information become available at a later date.

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Don Kiesling, Jr.

Attorney for Rexnord Industries, LLC

7/7/11

Date

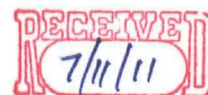
APPENDIX

- A. Mortgage, Assignment of Leases and Rents, Security Agreement and Financing Statement from Zurn Pex, Inc. (f/k/a United States Brass Corporation) to Wilmington Trust Company (July 15, 2003) - (ZURN00001-ZURN00038)
- B. Material Safety Data Sheet - Tap Magic Cutting Fluid (Nov. 19, 1985) - (ZURN00039-ZURN00044)
- C. Material Safety Data Sheet - Open & Shut (Feb. 1, 1998) - (ZURN00045-ZURN00046)
- D. Material Safety Data Sheet - Switch and Contact Cleaner (Oct. 24, 1989) - (ZURN00047-ZURN00050)
- E. Material Safety Data Sheet - Cond-X Aerosol (March 15, 1999) - (ZURN00051-ZURN00053)
- F. Material Safety Data Sheet - Loctite Antiseize Lubricant (Nov. 1, 1989) - (ZURN00054-ZURN00055)
- G. Facility Map - (ZURN00056)
- H. Industrial Wastewater Discharge Permits - (ZURN00057-ZURN00094)
- I. Industrial Wastewater Discharge Permit Applications - (ZURN00095-ZURN00144)
- J. Self-Monitoring Report (Jan. 21, 2009) - (ZURN00144-ZURN00163)



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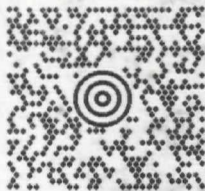
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2003-29844

ELKHART COUNTY RECORDER
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HOLD FOR MERIDIAN TITLE CORP.

MORTGAGE, ASSIGNMENT OF LEASES AND RENTS,
SECURITY AGREEMENT AND FINANCING STATEMENT

From

ZURN PEX, Inc.

(formerly known as UNITED STATES BRASS CORPORATION)

To

WILMINGTON TRUST COMPANY

Dated: July 15, 2003
Premises: 1900 W. Hively Avenue
Elkhart, IN
Elkhart County

Document prepared by and
When recorded return to:
DeWitt A. Sullivan
Cravath, Swaine & Moore LLP
Worldwide Plaza
825 Eighth Avenue
New York, New York 10019

ZURN00001

THIS MORTGAGE, ASSIGNMENT OF LEASES AND RENTS, SECURITY AGREEMENT AND FINANCING STATEMENT dated as of July 15, 2003 (this "Mortgage"), by ZURN PEX, INC. (formerly known as United States Brass Corporation), a Delaware corporation, having an office at c/o Jacuzzi Brands, Inc., 777 S. Flagler Drive, Suite 1108, West Palm Beach, FL 33401 (the "Mortgagor"), to WILMINGTON TRUST COMPANY, having an office at Rodney Square North, 1100 North Market Street, Wilmington, DE 19890-0001 (the "Mortgagee") as Collateral Agent for the Secured Parties (as such terms are defined below).

WITNESSETH THAT:

Reference is made to the Indenture dated as of July 15, 2003 (as amended, supplemented or otherwise modified from time to time, the "Indenture"), among Jacuzzi Brands, Inc. (the "Issuer"), the Guarantors listed on Schedule I thereto (together with the Issuer, the "Indenture Parties"), Wilmington Trust Company, as Trustee ("Trustee"), and (b) the Purchase Agreement dated as of June 30, 2003, among the Issuer and Credit Suisse First Boston LLC (the "Initial Purchaser"), the Issuer is issuing \$380,000,000 aggregate principal amount of 9% Senior Secured Notes due 2010 (the "Notes"), which will be guaranteed on a senior secured basis by each of the Subsidiary Guarantors. Capitalized terms used but not defined herein have the meanings given to them in the Indenture.

Mortgagor is a wholly owned Subsidiary of the Issuer and will derive substantial benefit from the execution of the Indenture by the Trustee and the issuance of the Notes to the Initial Purchaser. In order to induce the Trustee to enter into the Indenture and the Initial Purchaser to purchase the Notes, the Mortgagor has agreed to guarantee the due and punctual payment and performance of all of the Obligations of the Issuer under the Indenture.

The obligations of the Trustee to enter into the Indenture and the Initial Purchaser to purchase the Notes are conditioned upon, among other things, the execution and delivery by the Mortgagor of this Mortgage in the form hereof to secure Mortgagor's guaranty of all obligations for principal, premium, interest, penalties, fees, indemnifications, reimbursements and other amounts payable

pursuant to the documentation governing such Indebtedness (the "Obligations").

As used in this Mortgage, the term "*Secured Parties*" shall mean (a) the Trustee, (b) the Collateral Agent, (c) each Securityholder, (d) the beneficiaries of each indemnification obligation undertaken by the Company or any Subsidiary Guarantor under the Indenture, the Notes and Class A Security Documents (together with the Notes and the Indenture "Class A Indenture Documents") and (e) the successors and assigns of each of the foregoing.

Pursuant to the requirements of the Indenture, the Mortgagor is granting this Mortgage to create a lien on and a security interest in the Mortgaged Property (as hereinafter defined) to secure the performance and payment by the Mortgagor of the Obligations. The Indenture also requires the granting by other Indenture Parties of mortgages, deeds of trust and/or deeds to secure debt (the "*Other Mortgages*") that create liens on and security interests in certain real and personal property other than the Mortgaged Property to secure the performance of the Obligations.

Granting Clauses

NOW, THEREFORE, IN CONSIDERATION OF the foregoing and in order to secure the due and punctual payment and performance of the Obligations for the benefit of the Secured Parties, Mortgagor hereby assigns and conveys as security, grants a security interest in, hypothecates, mortgages, warrants, pledges and sets over unto Mortgagee all of the following described property (the "*Mortgaged Property*") whether now owned or held or hereafter acquired:

(1) the land more particularly described on Exhibit A hereto (the "*Land*"), together with all rights appurtenant thereto, including the easements over certain other adjoining land granted by any easement agreements, covenant or restrictive agreements and all air rights, mineral rights, water rights, oil and gas rights and development rights, if any, relating thereto, and also together with all of the other easements, rights, privileges, interests, hereditaments and appurtenances thereunto belonging or in any way appertaining and all of the estate, right, title, interest, claim or demand whatsoever of Mortgagor therein and in the streets and ways adjacent thereto, either in law or in equity, in possession or expectancy, now or hereafter acquired (the "*Premises*");

(2) all buildings, improvements, structures, paving, parking areas, walkways and landscaping now or hereafter erected or located upon the Land, and all fixtures of every kind and type affixed to the Premises or attached to or forming part of any structures, buildings or improvements and replacements thereof now or hereafter erected or located upon the Land (the "*Improvements*");

(3) all apparatus, movable appliances, building materials, equipment, fittings, furnishings, furniture, machinery and other articles of tangible personal property of every kind and nature, and replacements thereof, now or at any time hereafter placed upon or used in any way in connection with the use, enjoyment, occupancy or operation of the Improvements or the Premises, including all of Mortgagor's books and records relating thereto and including all pumps, tanks, goods, machinery, tools, equipment, lifts (including fire sprinklers and alarm systems, fire prevention or control systems, cleaning rigs, air conditioning, heating, boilers, refrigerating, electronic monitoring, water, loading, unloading, lighting, power, sanitation, waste removal, entertainment, communications, computers, recreational, window or structural, maintenance, truck or car repair and all other equipment of every kind), restaurant, bar and all other indoor or outdoor furniture (including tables, chairs, booths, serving stands, planters, desks, sofas, racks, shelves, lockers and cabinets), bar equipment, glasses, cutlery, uniforms, linens, memorabilia and other decorative items, furnishings, appliances, supplies, inventory, rugs, carpets and other floor coverings, draperies, drapery rods and brackets, awnings, venetian blinds, partitions, chandeliers and other lighting fixtures, freezers, refrigerators, walk-in coolers, signs (indoor and outdoor), computer systems, cash registers and inventory control systems, and all other apparatus, equipment, furniture, furnishings, and articles used in connection with the use or operation of the Improvements or the Premises, it being understood that the enumeration of any specific articles of property shall in no way result in or be held to exclude any items of property not specifically mentioned (the property referred to in this subparagraph (3), the "*Personal Property*");

(4) all general intangibles owned by Mortgagor and relating to design, development, operation, management and use of the Premises or the Improvements, all certificates of occupancy, zoning variances, building, use or other permits, approvals, authorizations and consents obtained from and all

materials prepared for filing or filed with any governmental agency in connection with the development, use, operation or management of the Premises and Improvements, all construction, service, engineering, consulting, leasing, architectural and other similar contracts concerning the design, construction, management, operation, occupancy and/or use of the Premises and Improvements, all architectural drawings, plans, specifications, soil tests, feasibility studies, appraisals, environmental studies, engineering reports and similar materials relating to any portion of or all of the Premises and Improvements, and all payment and performance bonds or warranties or guarantees relating to the Premises or the Improvements, all to the extent assignable (the "Permits, Plans and Warranties");

(5) all now or hereafter existing leases or licenses (under which Mortgagor is landlord or licensor) and subleases (under which Mortgagor is sublandlord), concession, management, mineral or other agreements of a similar kind that permit the use or occupancy of the Premises or the Improvements for any purpose in return for any payment, or the extraction or taking of any gas, oil, water or other minerals from the Premises in return for payment of any fee, rent or royalty (collectively, "Leases"), and all agreements or contracts for the sale or other disposition of all or any part of the Premises or the Improvements, now or hereafter entered into by Mortgagor, together with all charges, fees, income, issues, profits, receipts, rents, revenues or royalties payable thereunder ("Rents");

(6) all real estate tax refunds and all proceeds of the conversion, voluntary or involuntary, of any of the Mortgaged Property into cash or liquidated claims ("Proceeds"), including Proceeds of insurance maintained by the Mortgagor and condemnation awards, any awards that may become due by reason of the taking by eminent domain or any transfer in lieu thereof of the whole or any part of the Premises or Improvements or any rights appurtenant thereto, and any awards for change of grade of streets, together with any and all moneys now or hereafter on deposit for the payment of real estate taxes, assessments or common area charges levied against the Mortgaged Property, unearned premiums on policies of fire and other insurance maintained by the Mortgagor covering any interest in the Mortgaged Property or required by the Indenture; and

(7) all extensions, improvements, betterments, renewals, substitutes and replacements of and all additions and

appurtenances to, the Land, the Premises, the Improvements, the Personal Property, the Permits, Plans and Warranties and the Leases, hereinafter acquired by or released to the Mortgagor or constructed, assembled or placed by the Mortgagor on the Land, the Premises or the Improvements, and all conversions of the security constituted thereby, immediately upon such acquisition, release, construction, assembling, placement or conversion, as the case may be, and in each such case, without any further mortgage, deed of trust, conveyance, assignment or other act by the Mortgagor, all of which shall become subject to the lien of this Mortgage as fully and completely, and with the same effect, as though now owned by the Mortgagor and specifically described herein; provided that the "Mortgaged Property" shall not include (i) any asset financed with the proceeds of purchase money debt (so long as such debt is secured by such asset), (ii) any asset financed pursuant to a capital lease (so long as the obligation under such lease are secured by such asset) or (iii) any other asset that constitutes personal property and is not "Equipment" as defined in the UCC.

TO HAVE AND TO HOLD the Mortgaged Property unto the Mortgagee, its successors and assigns, for the ratable benefit of the Secured Parties, forever, subject only to Permitted Liens and to satisfaction and release as provided in Section 3.04.

ARTICLE I

Representations, Warranties and Covenants of Mortgagor

Mortgagor agrees, covenants, represents and/or warrants as follows:

SECTION 1.01. Title, Mortgage Lien. (a) Mortgagor has good and marketable fee simple title to the Premises and the Improvements and good title to the other Mortgaged Property, in each case subject only to Permitted Liens, including as Permitted Liens the liens, encumbrances and title exceptions listed in Schedule B to the title insurance policy delivered to Mortgagee in connection with this Mortgage.

(b) The execution and delivery of this Mortgage is within Mortgagor's corporate powers and has been duly authorized by all necessary corporate and, if required, stockholder action. This Mortgage has been duly executed and delivered by Mortgagor and constitutes a legal, valid

and binding obligation of Mortgagor, enforceable in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

(c) The execution, delivery and recordation of this Mortgage (i) do not require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority, except such as have been obtained or made and are in full force and effect and except filings necessary to perfect the lien of this Mortgage, (ii) will not violate any applicable law or regulation or the charter, by-laws or other organizational documents of Mortgagor or any order of any Governmental Authority which violations, in the aggregate could reasonably be expected to have a Material Adverse Effect as defined in the Indenture, (iii) will not violate or result in a default under any indenture, agreement or other instrument binding upon Mortgagor or its assets, or give rise to a right thereunder to require any payment to be made by Mortgagor which violations and defaults, in the aggregate, could reasonably be expected to have a Material Adverse Effect, and (iv) will not result in the creation or imposition of any Lien on any asset of Mortgagor, except the lien of this Mortgage.

(d) This Mortgage and the Uniform Commercial Code Financing Statements described in Section 1.09 of this Mortgage, when duly recorded in the public records in the county where the Premises are located will create a valid, perfected and enforceable lien upon and security interest in all of the Mortgaged Property.

(e) Mortgagor will forever warrant and defend its title to the Mortgaged Property, the rights of Mortgagee therein under this Mortgage and the validity and priority of the lien of this Mortgage thereon against the claims of all persons and parties except those having rights under Permitted Liens to the extent of those rights.

SECTION 1.02. Indenture. This Mortgage is given pursuant to the Indenture. Mortgagor expressly covenants and agrees to pay when due, and to timely perform, and to cause the other Issuer and Guarantors to pay when due, and to timely perform, the Obligations in accordance with the terms of the Class A Indenture Documents.

SECTION 1.03. Payment of Taxes, and Other Obligations.

(a) Mortgagor will pay and discharge from time to time prior to the time when the same shall become delinquent, and before any interest or penalty accrues thereon or attaches thereto, all Taxes and other obligations with respect to the Mortgaged Property or any part thereof or upon the Rents from the Mortgaged Property or arising in respect of the occupancy, use or possession thereof in accordance with, and to the extent required by, the Indenture.

(b) In the event of the passage of any state, Federal, municipal or other governmental law, order, rule or regulation subsequent to the date hereof (i) deducting from the value of real property for the purpose of taxation any lien or encumbrance thereon or in any manner changing or modifying the laws now in force governing the taxation of this Mortgage or debts secured by mortgages or deeds of trust (other than laws governing income, franchise and similar taxes generally) or the manner of collecting taxes thereon and (ii) imposing a tax to be paid by Mortgagee, either directly or indirectly, on this Mortgage or any of the Class A Indenture Documents, or requiring an amount of taxes to be withheld or deducted therefrom, Mortgagor will promptly (i) notify Mortgagee of such event, (ii) enter into such further instruments as Mortgagee may determine are reasonably necessary or desirable to obligate Mortgagor to make any additional payments necessary to put the Lenders and Secured Parties in the same financial position they would have been in if such law, order, rule or regulation had not been passed and (iii) make such additional payments to Mortgagee for the benefit of the Secured Parties.

SECTION 1.04. Maintenance of Mortgaged Property.

Mortgagor shall maintain or cause to be maintained all the Improvements in good condition and repair (reasonable wear and tear excepted) and shall not commit or suffer any waste of the Improvements.

SECTION 1.05. Insurance. Mortgagor shall maintain, with financially sound and reputable insurance companies, insurance on Improvements and Personal Property in such amounts and against such risks, including fire, casualty and other risks insured against by extended coverage, as are customarily maintained by companies engaged in the same or similar businesses operating in the same or similar locations. If any portion of the Mortgaged Property is located in an area identified as a special flood hazard area by Federal Emergency

Management Agency or other applicable agency, Mortgagor will purchase flood insurance in an amount reasonably satisfactory to Mortgagee, but in no event less than the maximum limit of coverage available under the National Flood Insurance Act of 1968, as amended.

SECTION 1.06. Casualty Condemnation/Eminent Domain.

Mortgagor shall give Mortgagee prompt written notice of any casualty or other damage to the Mortgaged Property or any proceeding for the taking of the Mortgaged Property or any portion thereof or interest therein under power of eminent domain or by condemnation or any similar proceeding in accordance with, and to the extent required by, Section 12.03 of the Indenture. Any net proceeds received by or on behalf of the Mortgagor in respect of any such casualty, damage or taking shall be applied by the Mortgagor only as permitted under the Indenture.

SECTION 1.07. Assignment of Leases and Rents.

(a) Mortgagor hereby irrevocably and absolutely grants, transfers and assigns all of its right title and interest in all Leases, together with any and all extensions and renewals thereof for purposes of securing and discharging the performance by Mortgagor of the Obligations. Mortgagor has not assigned or executed any assignment of, and will not assign or execute any assignment of, any Leases or the Rents payable thereunder to anyone other than Mortgagee and the lien thereon described in clause (7) of the definition of "Permitted Liens" (the "Securityholders Debt Lien") and liens that may be granted after the date hereof secure pari passu Indebtedness permitted to be incurred under the Indenture.

(b) All Leases shall be subordinate to the lien of this Mortgage as it may be modified, amended and restated from time to time. Mortgagor will not enter into, modify or amend any Lease if such Lease, as entered into, modified or amended, will not be subordinate to the lien of this Mortgage as it may be modified, amended and restated from time to time.

(c) Subject to Section 1.07(d) and to the second-priority Securityholders Debt Lien, Mortgagor has assigned and transferred to Mortgagee all of Mortgagor's right, title and interest in and to the Rents now or hereafter arising from each Lease heretofore or hereafter made or agreed to by Mortgagor, it being intended that this assignment establish, subject to Section 1.07(d), an absolute transfer and assignment of all Rents and all

Leases to Mortgagee and not merely to grant a security interest therein. Subject to Section 1.07(d), Mortgagee may in Mortgagor's name and stead (with or without first taking possession of any of the Mortgaged Property personally or by receiver as provided herein) operate the Mortgaged Property and rent, lease or let all or any portion of any of the Mortgaged Property to any party or parties at such rental and upon such terms as Mortgagee shall, in its sole discretion, determine, and may collect and have the benefit of all of said Rents arising from or accruing at any time thereafter or that may thereafter become due under any Lease.

(d) So long as an Event of Default shall not have occurred and be continuing, Mortgagee will not exercise any of its rights under Section 1.07(c), and Mortgagor shall receive and collect the Rents accruing under any Lease; but after the happening and during the continuance of any Event of Default, Mortgagee may, at its option, receive and collect all Rents and enter upon the Premises and Improvements through its officers, agents, employees or attorneys for such purpose and for the operation and maintenance thereof. Mortgagor hereby irrevocably authorizes and directs each tenant, if any, and each successor, if any, to the interest of any tenant under any Lease, respectively, to rely upon any notice of a claimed Event of Default sent by Mortgagee to any such tenant or any of such tenant's successors in interest, and thereafter to pay Rents to Mortgagee without any obligation or right to inquire as to whether an Event of Default actually exists and even if some notice to the contrary is received from the Mortgagor, who shall have no right or claim against any such tenant or successor in interest for any such Rents so paid to Mortgagee. Each tenant or any of such tenant's successors in interest from whom Mortgagee or any officer, agent, attorney or employee of Mortgagee shall have collected any Rents, shall be authorized to pay Rents to Mortgagor only after such tenant or any of their successors in interest shall have received written notice from Mortgagee that the Event of Default is no longer continuing, unless and until a further notice of an Event of Default is given by Mortgagee to such tenant or any of its successors in interest.

(e) Mortgagee will not become a mortgagee in possession so long as it does not enter or take actual

possession of the Mortgaged Property. In addition, Mortgagee shall not be responsible or liable for performing any of the obligations of the landlord under any Lease, for any waste by any tenant, or others, for any dangerous or defective conditions of any of the Mortgaged Property, for negligence in the management, upkeep, repair or control of any of the Mortgaged Property or any other act or omission by any other person.

(f) Mortgagor shall furnish to Mortgagee, within 30 days after a request by Mortgagee to do so, a written statement containing the names of all tenants, subtenants and concessionaires of the Premises or Improvements, the terms of any Lease, the space occupied and the rentals and/or other amounts payable thereunder.

SECTION 1.08. Restrictions on Transfers and Encumbrances. Mortgagor shall not directly or indirectly sell, convey, alienate, assign, lease, sublease, license, mortgage, pledge, encumber or otherwise transfer, create, consent to or suffer the creation of any lien, charge or other form of encumbrance upon any interest in or any part of the Mortgaged Property, or be divested of its title to the Mortgaged Property or any interest therein in any manner or way, whether voluntarily or involuntarily (other than resulting from a condemnation), or engage in any common, cooperative, joint, time-sharing or other congregate ownership of all or part thereof, except in each case in accordance with and to the extent permitted by the Indenture; provided, that Mortgagor may, in the ordinary course of business and in accordance with reasonable commercial standards, (a) enter into easement or covenant agreements that relate to and/or benefit and/or burden the operation of the Mortgaged Property and that do not materially adversely affect the value, use or operation of the Mortgaged Property, and/or (b) enter into a Lease or Leases of the Mortgaged Property or any part or parts thereof, provided that any such Lease (i) is made for not less than the fair rental value of the premises in question as determined by Issuer, (ii) is otherwise made on commercially reasonable provisions as determined by Issuer, (iii) is subject and subordinate to this Mortgage, and (iv) does not contain any option, right of first refusal, right of first offer or similar right to purchase the Mortgaged Property or any part thereof. ((A) If Mortgagor shall enter into any easement or covenant agreement pursuant to the preceding provided clause (a), such agreement shall be deemed to be a Permitted Lien and, promptly after

receipt of a written request from Mortgagor or Issuer, a copy of such agreement and a certificate by a Senior Vice President or higher ranking officer of Issuer to the effect that such agreement is made in the ordinary course of business and in accordance with reasonable commercial standards and does not materially and adversely affect the value, use or operation of the Mortgaged Property, Mortgagee shall execute and deliver any documents reasonably requested by Mortgagor to subordinate this Mortgage to such agreement. (B) If Mortgagor shall enter into any Lease pursuant to the preceding provided clause (b), such lease shall be deemed to be a Permitted Lien (provided that it complies with clauses (i) through (iv)) and, promptly after receipt of a written request from Mortgagor or Issuer, a copy of such Lease and a certificate by a Senior Vice President or higher ranking officer of Issuer to the effect that such Lease (i) is made for not less than the fair rental value of the premises in question, (ii) is otherwise made on commercially reasonable provisions, (iii) is subject and subordinate to this Mortgage, and (iv) does not contain any option, right of first refusal, right of first offer or similar right to purchase the Mortgaged Property or any part thereof, Mortgagor shall execute and deliver a subordination, non-disturbance and attornment agreement in substantially the form of Exhibit B hereto. Mortgagor will pay all costs and expenses, including reasonable attorneys' fees, disbursements and other charges incurred by Mortgagee in connection with the preparation, execution and delivery of such documents.) If any of the foregoing transfers or encumbrances results in a Prepayment Event, any net cash proceeds received by or on behalf of the Mortgagor in respect thereof shall constitute trust funds to be held by the Mortgagor for the benefit of the Secured Parties and applied in accordance with Section 2.11 of the Indenture.

SECTION 1.09. Security Agreement. This Mortgage is both a mortgage of real property and a grant of a security interest in personal property, and shall constitute and serve as a "Security Agreement" within the meaning of the uniform commercial code as adopted in the state wherein the Premises are located ("UCC"). Mortgagor has hereby granted unto Mortgagee a security interest in and to all the Mortgaged Property described in this Mortgage that is not real property, and simultaneously with the recording of this Mortgage, Mortgagor has filed or will file UCC financing statements, and will file continuation statements prior to the lapse thereof, at the appropriate offices in the state in which the Premises are located to perfect the security interest granted by this

Mortgage in all the Mortgaged Property that is not real property. Mortgagor hereby appoints Mortgagee as its true and lawful attorney-in-fact and agent, for Mortgagor and in its name, place and stead, in any and all capacities, to execute any document and to file the same in the appropriate offices (to the extent it may lawfully do so), and to perform each and every act and thing reasonably requisite and necessary to be done to perfect the security interest contemplated by the preceding sentence. Mortgagee shall have all rights with respect to the part of the Mortgaged Property that is the subject of a security interest afforded by the UCC in addition to, but not in limitation of, the other rights afforded Mortgagee hereunder and under the Security Agreement.

SECTION 1.10. Filing and Recording. Mortgagor will cause this Mortgage, the UCC financing statements referred to in Section 1.09, any other security instrument creating a security interest in or evidencing the lien hereof upon the Mortgaged Property and each UCC continuation statement and instrument of further assurance to be filed, registered or recorded and, if necessary, refiled, rerecorded and reregistered, in such manner and in such places as may be required by any present or future law in order to publish notice of and fully to perfect the lien hereof upon, and the security interest of Mortgagee in, the Mortgaged Property until this Mortgage is terminated and released in full in accordance with Section 3.04 hereof. Mortgagor will pay all filing, registration and recording fees, all Federal, state, county and municipal recording, documentary or intangible taxes and other taxes, duties, imposts, assessments and charges, and all reasonable expenses incidental to or arising out of or in connection with the execution, delivery and recording of this Mortgage, UCC continuation statements any mortgage supplemental hereto, any security instrument with respect to the Personal Property, Permits, Plans and Warranties and Proceeds or any instrument of further assurance.

SECTION 1.11. Further Assurances. Upon demand by Mortgagee, Mortgagor will, at the cost of Mortgagor and without expense to Mortgagee, do, execute, acknowledge and deliver all such further acts, deeds, conveyances, mortgages, assignments, notices of assignment, transfers and assurances as Mortgagee shall from time to time reasonably require for the better assuring, conveying, assigning, transferring and confirming unto Mortgagee the property and rights hereby conveyed or assigned or intended now or hereafter so to be, or

which Mortgagor may be or may hereafter become bound to convey or assign to Mortgagee, or for carrying out the intention or facilitating the performance of the terms of this Mortgage, or for filing, registering or recording this Mortgage, and on demand, Mortgagor will also execute and deliver and hereby appoints Mortgagee as its true and lawful attorney-in-fact and agent, for Mortgagor and in its name, place and stead, in any and all capacities, to execute and file to the extent it may lawfully do so, one or more financing statements, chattel mortgages or comparable security instruments reasonably requested by Mortgagee to evidence more effectively the lien hereof upon the Personal Property and to perform each and every act and thing requisite and necessary to be done to accomplish the same.

SECTION 1.12. Additions to Mortgaged Property. All right, title and interest of Mortgagor in and to all extensions, improvements, betterments, renewals, substitutes and replacements of, and all additions and appurtenances to, the Mortgaged Property hereafter acquired by or released to Mortgagor or constructed, assembled or placed by Mortgagor upon the Premises or the Improvements, and all conversions of the security constituted thereby, immediately upon such acquisition, release, construction, assembling, placement or conversion, as the case may be, and in each such case without any further mortgage, conveyance, assignment or other act by Mortgagor, shall become subject to the lien and security interest of this Mortgage as fully and completely and with the same effect as though now owned by Mortgagor and specifically described in the grant of the Mortgaged Property above, but at any and all times Mortgagor will execute and deliver to Mortgagee any and all such further assurances, mortgages, conveyances or assignments thereof as Mortgagee may reasonably require for the purpose of expressly and specifically subjecting the same to the lien and security interest of this Mortgage.

SECTION 1.13. No Claims Against Mortgagee. Nothing contained in this Mortgage shall constitute any consent or request by Mortgagee, express or implied, for the performance of any labor or services or the furnishing of any materials or other property in respect of the Mortgaged Property or any part thereof, nor as giving Mortgagor any right, power or authority to contract for or permit the performance of any labor or services or the furnishing of any materials or other property in such fashion as would permit the making of any claim against Mortgagee in respect thereof.

SECTION 1.14. Fixture Filing. Certain portions of the Mortgaged Property are or will become "fixtures" (as that term is defined in the UCC) on the Land, and this Mortgage, upon being filed for record in the real estate records of the county wherein such fixtures are situated, shall operate also as a financing statement filed as a fixture filing in accordance with the applicable provisions of said UCC upon such portions of the Mortgaged Property that are or become fixtures.

ARTICLE II

Defaults and Remedies

SECTION 2.01. Events of Default. Any Event of Default under the Indenture (as such term is defined therein) shall constitute an Event of Default under this Mortgage.

SECTION 2.02. Demand for Payment. If an Event of Default shall occur and be continuing, then, upon written demand of Mortgagee, Mortgagor will pay to Mortgagee all amounts due hereunder and under the Indenture and such further amount as shall be sufficient to cover the reasonable costs and expenses of collection, including reasonable attorneys' fees, disbursements and expenses incurred by Mortgagee, and Mortgagee shall be entitled and empowered to institute an action or proceedings at law or in equity for the collection of the sums so due and unpaid, to prosecute any such action or proceedings to judgment or final decree, to enforce any such judgment or final decree against Mortgagor and to collect, in any manner provided by law, all moneys adjudged or decreed to be payable and all such moneys so adjudged or decreed to be payable shall be deemed a portion of the Obligations secured by the Mortgagee.

SECTION 2.03. Rights To Take Possession, Operate and Apply Revenues. (a) If an Event of Default shall occur and be continuing, Mortgagor shall, upon demand of Mortgagee, forthwith surrender to Mortgagee actual possession of the Mortgaged Property and, if and to the extent not prohibited by applicable law, Mortgagee itself, or by such officers or agents as it may appoint, may then enter and take possession of all the Mortgaged Property without the appointment of a receiver or an application therefor, exclude Mortgagor and its agents and employees wholly therefrom, and have access to the books, papers and accounts of Mortgagor.

(b) If Mortgagor shall for any reason fail to surrender or deliver the Mortgaged Property or any part thereof after such demand by Mortgagee, Mortgagee may to the extent not prohibited by applicable law, obtain a judgment or decree conferring upon Mortgagee the right to immediate possession or requiring Mortgagor to deliver immediate possession of the Mortgaged Property to Mortgagee, to the entry of which judgment or decree Mortgagor hereby specifically consents. Mortgagor will pay to Mortgagee, upon demand, all reasonable expenses of obtaining such judgment or decree, including reasonable compensation to Mortgagee's attorneys and agents with interest thereon at the weighted average rate payable from time to time on the Loans made pursuant to the Indenture (the "Interest Rate"); and all such expenses and compensation shall, until paid, be secured by this Mortgage.

(c) Upon every such entry or taking of possession, Mortgagee may, to the extent not prohibited by applicable law, hold, store, use; operate, manage and control the Mortgaged Property, conduct the business thereof and, from time to time, (i) make all necessary and proper maintenance, repairs, renewals, replacements, additions, betterments and improvements thereto and thereon, (ii) purchase or otherwise acquire additional fixtures, personalty and other property, (iii) insure or keep the Mortgaged Property insured, (iv) manage and operate the Mortgaged Property and exercise all the rights and powers of Mortgagor to the same extent as Mortgagor could in its own name or otherwise with respect to the same, or (v) enter into any and all agreements with respect to the exercise by others of any of the powers herein granted Mortgagee, all as may from time to time be directed or determined reasonably by Mortgagee to be in its best interest and Mortgagor hereby appoints Mortgagee as its true and lawful attorney-in-fact and agent, for Mortgagor and in its name, place and stead, in any and all capacities, to perform any of the foregoing acts. Mortgagee may collect and receive all the Rents, issues, profits and revenues from the Mortgaged Property, including those past due as well as those accruing thereafter, and, after deducting (i) all expenses of taking, holding, managing and operating the Mortgaged Property (including compensation for the services of all persons employed for such purposes), (ii) the costs of all such maintenance, repairs, renewals, replacements,

additions, betterments, improvements, purchases and acquisitions, (iii) the costs of insurance, (iv) such taxes, assessments and other similar charges as Mortgagee may at its option pay, (v) other proper charges upon the Mortgaged Property or any part thereof and (vi) the reasonable compensation, expenses and disbursements of the attorneys and agents of Mortgagee, Mortgagee shall apply the remainder of the moneys and proceeds so received first to the payment of the Mortgagee for the satisfaction of the Obligations, and second, if there is any surplus, to Mortgagor, subject to the entitlement of others thereto under applicable law.

(d) Whenever, before any sale of the Mortgaged Property under Section 2.06, all Obligations that are then due shall have been paid and all Events of Default fully cured, Mortgagee will surrender possession of the Mortgaged Property back to Mortgagor, its successors or assigns. The same right of taking possession shall, however, arise again if any subsequent Event of Default shall occur and be continuing.

SECTION 2.04. Right To Cure Mortgagor's Failure to Perform. Should Mortgagor fail in the payment, performance or observance of any term, covenant or condition required by this Mortgage or the Indenture (with respect to the Mortgaged Property) and an Event of Default shall occur and be continuing, Mortgagee may pay, perform or observe the same, and all payments made or costs or expenses incurred by Mortgagee in connection therewith shall be secured hereby and shall be, without demand, immediately repaid by Mortgagor to Mortgagee with interest thereon at the Interest Rate. Mortgagee shall use its reasonable discretion as to the necessity for any such actions and the amounts to be paid. Mortgagee is hereby empowered to enter and to authorize others to enter upon the Premises or the Improvements or any part thereof for the purpose of performing or observing any such defaulted term, covenant or condition without having any obligation to so perform or observe and without thereby becoming liable to Mortgagor, to any person in possession holding under Mortgagor or to any other person.

SECTION 2.05. Right to a Receiver. If an Event of Default shall occur and be continuing, Mortgagee, upon application to a court of competent jurisdiction, shall be entitled as a matter of right to the appointment of a receiver to take possession of and to operate the Mortgaged Property and to collect and apply the Rents. The receiver shall have all of

the rights and powers permitted under the laws of the state wherein the Mortgaged Property is located. Mortgagor shall pay to Mortgagee upon demand all reasonable expenses, including receiver's fees, reasonable attorney's fees and disbursements, costs and agent's compensation incurred pursuant to the provisions of this Section 2.05; and all such expenses shall be secured by this Mortgage and shall be, without demand, immediately repaid by Mortgagor to Mortgagee with interest thereon at the Interest Rate.

SECTION 2.06. Foreclosure and Sale. (a) If an Event of Default shall occur and be continuing, Mortgagee may elect to sell the Mortgaged Property or any part of the Mortgaged Property by exercise of the power of foreclosure or of sale granted to Mortgagee by applicable law or this Mortgage. In such case, Mortgagee may commence a civil action to foreclose this Mortgage, or it may proceed and sell the Mortgaged Property to satisfy any Obligation. Mortgagee or an officer appointed by a judgment of foreclosure to sell the Mortgaged Property, may sell all or such parts of the Mortgaged Property as may be chosen by Mortgagee at the time and place of sale fixed by it in a notice of sale, either as a whole or in separate lots, parcels or items as Mortgagee shall deem expedient, and in such order as it may determine, at public auction to the highest bidder. Mortgagee or an officer appointed by a judgment of foreclosure to sell the Mortgaged Property may postpone any foreclosure or other sale of all or any portion of the Mortgaged Property by public announcement at such time and place of sale, and from time to time thereafter may postpone such sale by public announcement or subsequently noticed sale. Without further notice, Mortgagee or an officer appointed to sell the Mortgaged Property may make such sale at the time fixed by the last postponement, or may, in its discretion, give a new notice of sale. Any person, including Mortgagor or Mortgagee or any designee or affiliate thereof, may purchase at such sale.

(b) The Mortgaged Property may be sold subject to unpaid taxes and Permitted Liens, and, after deducting all reasonable costs, fees and expenses of Mortgagee (including costs of evidence of title in connection with the sale), Mortgagee or an officer that makes any sale shall apply the proceeds of sale in the manner set forth in Section 2.08.

(c) Any foreclosure or other sale of less than the whole of the Mortgaged Property or any defective or irregular sale made hereunder shall not exhaust the power

of foreclosure or of sale provided for herein; and subsequent sales may be made hereunder until the Obligations have been satisfied, or the entirety of the Mortgaged Property has been sold.

(d) If an Event of Default shall occur and be continuing, Mortgagee may instead of, or in addition to, exercising the rights described in Section 2.06(a) above and either with or without entry or taking possession as herein permitted, proceed by a suit or suits in law or in equity or by any other appropriate proceeding or remedy (i) to specifically enforce payment of some or all of the Obligations, or the performance of any term, covenant, condition or agreement of this Mortgage or any other Indenture Document or any other right, or (ii) to pursue any other remedy available to Mortgagee, all as Mortgagee shall determine most effectual for such purposes.

SECTION 2.07. Other Remedies. (a) In case an Event of Default shall occur and be continuing, Mortgagee may also exercise, to the extent not prohibited by law, any or all of the remedies available to a secured party under the UCC.

(b) In case an Event of Default shall be continuing, in connection with a sale of the Mortgaged Property or any Personal Property and the application of the proceeds of sale as provided in Section 2.08, Mortgagee shall be entitled to enforce payment of and to receive up to the principal amount of the Obligations, plus all other charges, payments and costs due under this Mortgage, and to recover a deficiency judgment for any portion of the aggregate principal amount of the Obligations remaining unpaid, with interest.

SECTION 2.08. Application of Sale Proceeds and Rents. After any foreclosure sale of all or any of the Mortgaged Property, Mortgagee shall receive and apply the proceeds of the sale together with any Rents that may have been collected and any other sums that then may be held by Mortgagee under this Mortgage as follows:

FIRST, to the payment of the costs and expenses of such sale, including reasonable compensation to Mortgagee's attorneys and agents, and of any judicial proceedings wherein the same may be made, and of all expenses, liabilities and advances made or incurred by Mortgagee under this Mortgage, together with interest at the Interest Rate on all advances made by Mortgagee,

including all taxes or assessments (except any taxes, assessments or other charges subject to which the Mortgaged Property shall have been sold);

SECOND, to the Mortgagee for the distribution to the Secured Parties for the satisfaction of the Obligations owed to the Secured Parties; and

THIRD, to the Mortgagor, its successors or assigns, or as a court of competent jurisdiction may otherwise direct.

The Mortgagee shall have absolute discretion as to the time of application of any such proceeds, moneys or balances in accordance with this Mortgage. Upon any sale of the Mortgaged Property by the Mortgagee (including pursuant to a power of sale granted by statute or under a judicial proceeding), the receipt of the Mortgagee or of the officer making the sale shall be a sufficient discharge to the purchaser or purchasers of the Mortgaged Property so sold and such purchaser or purchasers shall not be obligated to see to the application of any part of the purchase money paid over to the Mortgagee or such officer or be answerable in any way for the misapplication thereof.

SECTION 2.09. Mortgagor as Tenant Holding Over. If Mortgagor remains in possession of any of the Mortgaged Property after any foreclosure sale by Mortgagee, at Mortgagee's election Mortgagor shall be deemed a tenant holding over and shall forthwith surrender possession to the purchaser or purchasers at such sale or be summarily dispossessed or evicted according to provisions of law applicable to tenants holding over.

SECTION 2.10. Waiver of Appraisement, Valuation, Stay, Extension and Redemption Laws. Mortgagor waives, to the extent not prohibited by law, (i) the benefit of all laws now existing or that hereafter may be enacted (x) providing for any appraisement or valuation of any portion of the Mortgaged Property and/or (y) in any way extending the time for the enforcement or the collection of amounts due under any of the Obligations or creating or extending a period of redemption from any sale made in collecting said debt or any other amounts due Mortgagee, (ii) any right to at any time insist upon, plead, claim or take the benefit or advantage of any law now or hereafter in force providing for any homestead exemption, stay, statute of limitations, extension or redemption, or sale of the Mortgaged Property as separate

tracts, units or estates or as a single parcel in the event of foreclosure or notice of deficiency, and (iii) all rights of redemption, valuation, appraisal, stay of execution, notice of election to mature or declare due the whole of or each of the Obligations and marshaling in the event of foreclosure of this Mortgage.

SECTION 2.11. Discontinuance of Proceedings. In case Mortgagee shall proceed to enforce any right, power or remedy under this Mortgage by foreclosure, entry or otherwise, and such proceedings shall be discontinued or abandoned for any reason, or shall be determined adversely to Mortgagee, then and in every such case Mortgagor and Mortgagee shall be restored to their former positions and rights hereunder, and all rights, powers and remedies of Mortgagee shall continue as if no such proceeding had been taken.

SECTION 2.12. Suits To Protect the Mortgaged Property. Mortgagee shall have power to institute and maintain suits and proceedings (a) to prevent any impairment of the Mortgaged Property by any acts that may be unlawful or in violation of this Mortgage, (b) to preserve or protect its interest in the Mortgaged Property and in the Rents arising therefrom and (c) to restrain the enforcement of or compliance with any legislation or other governmental enactment, rule or order that may be unconstitutional or otherwise invalid if the enforcement of or compliance with such enactment, rule or order would impair the security or be prejudicial to the interest of Mortgagee hereunder.

SECTION 2.13. Filing Proofs of Claim. In case of any receivership, insolvency, bankruptcy, reorganization, arrangement, adjustment, composition or other proceedings affecting Mortgagor, Mortgagee shall, to the extent permitted by law, be entitled to file such proofs of claim and other documents as may be necessary or advisable in order to have the claims of Mortgagee allowed in such proceedings for the Obligations secured by this Mortgage at the date of the institution of such proceedings and for any interest accrued, late charges and additional interest or other amounts due or that may become due and payable hereunder after such date.

SECTION 2.14. Possession by Mortgagee. Notwithstanding the appointment of any receiver, liquidator or trustee of Mortgagor, any of its property or the Mortgaged Property, Mortgagee shall be entitled, to the extent not prohibited by law, to remain in possession and control of all parts of the Mortgaged Property now or hereafter granted under this

Mortgage to Mortgagee in accordance with the terms hereof and applicable law.

SECTION 2.15. Waiver. (a) No delay or failure by Mortgagee to exercise any right, power or remedy accruing upon any breach or Event of Default shall exhaust or impair any such right, power or remedy or be construed to be a waiver of any such breach or Event of Default or acquiescence therein; and every right, power and remedy given by this Mortgage to Mortgagee may be exercised from time to time and as often as may be deemed expedient by Mortgagee. No consent or waiver by Mortgagee to or of any breach or Event of Default by Mortgagor in the performance of the Obligations shall be deemed or construed to be a consent or waiver to or of any other breach or Event of Default in the performance of the same or of any other Obligations by Mortgagor hereunder. No failure on the part of Mortgagee to complain of any act or failure to act or to declare an Event of Default, irrespective of how long such failure continues, shall constitute a waiver by Mortgagee of its rights hereunder or impair any rights, powers or remedies consequent on any future Event of Default by Mortgagor.

(b) Even if Mortgagee (i) grants some forbearance or an extension of time for the payment of any sums secured hereby, (ii) takes other or additional security for the payment of any sums secured hereby, (iii) waives or does not exercise some right granted herein or under the Class A Indenture Documents, (iv) releases a part of the Mortgaged Property from this Mortgage, (v) agrees to change some of the terms, covenants, conditions or agreements of any of the Class A Indenture Documents, (vi) consents to the filing of a map, plat or replat affecting the Premises, (vii) consents to the granting of an easement or other right affecting the Premises or (viii) makes or consents to an agreement subordinating Mortgagee's lien on the Mortgaged Property hereunder; no such act or omission shall preclude Mortgagee from exercising any other right, power or privilege herein granted or intended to be granted in the event of any breach or Event of Default then made or of any subsequent default; nor, except as otherwise expressly provided in an instrument executed by Mortgagee, shall this Mortgage be altered thereby. In the event of the sale or transfer by operation of law or otherwise of all or part of the Mortgaged Property, Mortgagee is hereby authorized and empowered to deal with any vendee or transferee with reference to the Mortgaged Property secured hereby, or

with reference to any of the terms, covenants, conditions or agreements hereof, as fully and to the same extent as it might deal with the original parties hereto and without in any way releasing or discharging any liabilities, obligations or undertakings.

SECTION 2.16. Waiver of Trial by Jury. To the fullest extent permitted by applicable law, Mortgagor and Mortgagee each hereby irrevocably and unconditionally waive trial by jury in any action, claim, suit or proceeding relating to this Mortgage and for any counterclaim brought therein. Mortgagor hereby waives all rights to interpose any counterclaim in any suit brought by Mortgagee hereunder and all rights to have any such suit consolidated with any separate suit, action or proceeding.

SECTION 2.17. Remedies Cumulative. No right, power or remedy conferred upon or reserved to Mortgagee by this Mortgage is intended to be exclusive of any other right, power or remedy, and each and every such right, power and remedy shall be cumulative and concurrent and in addition to any other right, power and remedy given hereunder or now or hereafter existing at law or in equity or by statute.

ARTICLE III

Miscellaneous

SECTION 3.01. Partial Invalidity. In the event any one or more of the provisions contained in this Mortgage shall for any reason be held to be invalid, illegal or unenforceable in any respect, such validity, illegality or unenforceability shall, at the option of Mortgagee, not affect any other provision of this Mortgage, and this Mortgage shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein or therein.

SECTION 3.02. Notices. All notices and communications hereunder shall be in writing and given (a) to Mortgagor in accordance with the terms of the Indenture at the address set forth on the first page of this Mortgage with copies to the Issuer and its copy parties as provided in the Indenture, and (b) to the Mortgagee as provided in the Indenture.

SECTION 3.03. Successors and Assigns. All of the grants, covenants, terms, provisions and conditions herein shall run with the Premises and the Improvements and shall apply to,

bind and inure to, the benefit of the permitted successors and assigns of Mortgagor and the successors and assigns of Mortgagee.

SECTION 3.04. Satisfaction and Cancellation. (a) The conveyance to Mortgagee of the Mortgaged Property as security created and consummated by this Mortgage shall be null and void when all the Obligations have been indefeasibly paid or defeased in full in accordance with the terms of the Indenture (other than contingent indemnity or reimbursement obligations as to which no claim shall have been made when all other Obligations shall have been indefeasibly paid or defeased in full).

(b) Upon a sale or financing by Mortgagor of all or any portion of the Mortgaged Property that is permitted by the Indenture and the application of the net proceeds of such sale or financing in accordance with the terms of the Indenture, the lien of this Mortgage shall be released from the applicable portion of the Mortgaged Property.

(c) In connection with any termination or release pursuant to paragraph (a) or (b), the Mortgage shall be marked "satisfied" by the Mortgagee, and this Mortgage shall be canceled of record at the request and at the expense of the Mortgagor. Promptly after receipt of a written request from Mortgagor, Mortgagee shall execute and deliver any documents reasonably requested by Mortgagor to accomplish the foregoing or to accomplish any release contemplated by this Section 3.04. Mortgagor will pay all reasonable costs and expenses, including reasonable attorneys' fees, disbursements and other charges, incurred by Mortgagee in connection with the preparation, execution and delivery of such documents.

SECTION 3.05. Definitions. As used in this Mortgage, the singular shall include the plural as the context requires and the following words and phrases shall have the following meanings: (a) "including" shall mean "including but not limited to"; (b) "provisions" shall mean "provisions, terms, covenants and/or conditions"; (c) "lien" shall mean "lien, charge, encumbrance, security interest, mortgage or deed of trust"; (d) "obligation" shall mean "obligation, duty, covenant and/or condition"; and (e) "any of the Mortgaged Property" shall mean "the Mortgaged Property or any part thereof or interest therein". Any act that Mortgagee is permitted to perform hereunder may be performed at any time

and from time to time by Mortgagee or any person or entity designated by Mortgagee. Any act that is prohibited to Mortgagor hereunder is also prohibited to all lessees of any of the Mortgaged Property. Each appointment of Mortgagee as attorney-in-fact for Mortgagor under the Mortgage is irrevocable, with power of substitution and coupled with an interest. Subject to the applicable provisions hereof, Mortgagee has the right to refuse to grant its consent, approval or acceptance or to indicate its satisfaction, in its sole discretion, whenever such consent, approval, acceptance or satisfaction is required hereunder.

SECTION 3.06. Multisite Real Estate Transaction.

Mortgagor acknowledges that this Mortgage is one of a number of Other Mortgages and Class A Indenture Documents that secure the Obligations. Mortgagor agrees that the lien of this Mortgage shall be absolute and unconditional and shall not in any manner be affected or impaired by any acts or omissions whatsoever of Mortgagee, and without limiting the generality of the foregoing, the lien hereof shall not be impaired by any acceptance by the Mortgagee of any security for or guarantees of any of the Obligations hereby secured, or by any failure, neglect or omission on the part of Mortgagee to realize upon or protect any Obligation or indebtedness hereby secured or any collateral security therefor including the Other Mortgages and other Class A Indenture Documents. The lien hereof shall not in any manner be impaired or affected by any release (except as to the property released), sale, pledge, surrender, compromise, settlement, renewal, extension, indulgence, alteration, changing, modification or disposition of any of the Obligations secured or of any of the collateral security therefor, including the Other Mortgages and other Class A Indenture Documents or of any guarantee thereof, and Mortgagee may at its discretion foreclose, exercise any power of sale, or exercise any other remedy available to it under any or all of the Other Mortgages and other Class A Indenture Documents without first exercising or enforcing any of its rights and remedies hereunder. Such exercise of Mortgagee's rights and remedies under any or all of the Other Mortgages and other Class A Indenture Documents shall not in any manner impair the indebtedness hereby secured or the lien of this Mortgage and any exercise of the rights or remedies of Mortgagee hereunder shall not impair the lien of any of the Other Mortgages and other Class A Indenture Documents or any of Mortgagee's rights and remedies thereunder. Mortgagor specifically consents and agrees that Mortgagee may exercise its rights and remedies hereunder and under the Other Mortgages and Class A Indenture

Documents separately or concurrently and in any order that it may deem appropriate and waives any rights of subrogation.

SECTION 3.07. No Oral Modification. This Mortgage may not be changed or terminated orally. Any agreement made by Mortgagor and Mortgagee after the date of this Mortgage relating to this Mortgage shall be superior to the rights of the holder of any intervening or subordinate Mortgage, lien or encumbrance.

SECTION 3.08. Intercreditor Agreement. The rights and remedies set forth in this Mortgage are subject in all respects to the terms of the Intercreditor Agreement.

ARTICLE IV

Particular Provisions

This Mortgage is subject to the following provisions relating to the particular laws of the state wherein the Premises are located:

SECTION 4.01. Applicable Law; Certain Particular Provisions. This Mortgage shall be governed by and construed in accordance with the internal law of the state where the Mortgaged Property is located, except that Mortgagor expressly acknowledges that by their terms, the Indenture and other Class A Indenture Documents shall be governed by the internal law of the State of New York, without regard to principles of conflict of law. Mortgagor and Mortgagee agree to submit to jurisdiction and the laying of venue for any suit on this Mortgage in the state where the Mortgaged Property is located. The terms and provisions set forth in Appendix A attached hereto are hereby incorporated by reference as though fully set forth herein. In the event of any conflict between the terms and provisions contained in the body of this Mortgage and the terms and provisions set forth in Appendix A, the terms and provisions set forth in Appendix A shall govern and control.

2003-29844

IN WITNESS WHEREOF, this Mortgage has been duly executed and delivered to Mortgagee by Mortgagor on the date of the acknowledgment attached hereto.

ZURN PEX, INC., a Delaware corporation,

by:

Name:

Title:

Steven C. Barre
Vice President and
Assistant Secretary

Accepted and agreed to by the Mortgagee on the date of the acknowledgment attached hereto:

Wilmington Trust Company, not in its individual capacity but solely as Trustee

by:

Name:

Title:

James D. Nesci
Authorized Signer

2003-29844

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

On the 14th day of July in the year 2003
before me, the undersigned, a Notary Public in and for said
State, personally appeared Steven C. Barre,
personally known to me or proved to me on the basis of
satisfactory evidence to be the individual(s) whose name(s)
is(are) subscribed to the within instrument and acknowledged
to me that he/she/they executed the same in his/her/their
capacity(ies), and that by his/her/their signature(s) on the
instrument, the individual(s), or the person upon behalf of
which the individual(s) acted, ~~executed the~~ instrument.

[Signature]
Notary Public

My Commission expires: 2/24/05

SARALYN VASILE
NOTARY PUBLIC, State of New York
No. 43-4992597
Qualified in Suffolk County
Commission Expires: 4/5/05 2/24/05

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

On the 14th day of July in the year 2003
before me, the undersigned, a Notary Public in and for said
State, personally appeared James D. Nesci,
personally known to me or proved to me on the basis of
satisfactory evidence to be the individual(s) whose name(s)
is(are) subscribed to the within instrument and acknowledged
to me that he/she/they executed the same in his/her/their
capacity(ies), and that by his/her/their signature(s) on the
instrument, the individual(s), or the person upon behalf of
which the individual(s) acted, ~~executed the~~ instrument.

[Signature]
Notary Public

My Commission expires: 2/24/05

SARALYN VASILE
NOTARY PUBLIC, State of New York
No. 43-4992597
Qualified in Suffolk County
Commission Expires: 4/5/05 2/24/05

2003-29844

Exhibit A
to Mortgage

Description of the Land

A part of the Northwest Fractional Quarter of Section 18, Township 37 North, Range 5 East, situate in Concord Township, Elkhart County, State of Indiana, and being more particularly described as follows:

Beginning at a railroad spike in the pavement on the Southline of the Northwest Quarter of said Section 18, said railroad spike being North 89 degrees 13 minutes West a distance of 1260.22 feet from the Southeast corner of the Northwest Quarter of said Section 18; thence North 89 degrees 13 minutes West along the South line of the Northwest Quarter of said Section 18, a distance of 553.53 feet to a railroad spike in the pavement, said railroad spike being 550.05 feet East of the Southwest corner of the Northwest Quarter of said Section 18; thence North 0 degrees 00 minutes West, parallel with the West line of the Northwest Quarter of said Section 18, a distance of 1078.72 feet to an iron stake on the South line of the recorded Plat of Fieldhouse's West Side Addition; thence South 89 degrees 10 minutes East along the South line of said Fieldhouse's West Side Addition, a distance of 553.53 feet to an iron stake; thence South 0 degrees 00 minutes East a distance of 1078.36 feet to the place of beginning of this description.

Less and excepting the following described tract:

A part of the Northwest Quarter of Section 18, Township 37 North, Range 5 East, in Concord Township, Elkhart County, State of Indiana, being more particularly described as follows:

Commencing at a railroad spike marking the Southeast corner of said Quarter Section; thence North 89 degrees 13 minutes West, along the South line of said Quarter Section, a distance of 1260.22 feet; thence North 0 degrees West, a distance of 678.36 feet to the place of beginning of this description; thence North 89 degrees 10 minutes West, parallel with the South line of the recorded Plat of Fieldhouse's West Side Addition, a distance of 553.51 feet to a point that is 550.05 feet East of the West line of said Quarter Section; thence North 0 degrees West, a distance of 400 feet to a point on the South line of the Recorded Plat of Fieldhouse's West Side Addition thence South 89 degrees 10 minutes East along the South line of said recorded Plat, a distance of 553.50 feet;

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thence South 0 degrees East, a distance of 400 feet to the
place of beginning.

Subject to Public Highways.

Exhibit B
to Mortgage

SUBORDINATION, NON-DISTURBANCE AND ATTORNMENT AGREEMENT

AGREEMENT (this "Agreement") dated as of _____, 2003
between _____, a _____ having an address
at _____ ("Tenant") and _____, a
_____ having an address ("Mortgagee").

WITNESSETH

WHEREAS, Tenant is the owner and holder of the tenant's
interest under that certain lease dated as of _____, 2003
between _____ ("Landlord") and Tenant [, as
heretofore extended, amended or otherwise modified by
_____] (the "Lease"), relating to certain premises
described therein and in Exhibit A hereto (the "Premises");
and

WHEREAS, Mortgagee is the owner and holder of the
mortgagee's interest under that certain mortgage, assignment
of leases and rents, security agreement and financing
statement dated as of _____, 2003 made by Landlord to
Mortgagee recorded on _____, 20__ in the office of
_____ as document/instrument no. _____/in
book/liber _____ at page _____ [, as heretofore,
extended, amended or otherwise modified by _____] (the
"Mortgage"); and

WHEREAS, Tenant and Mortgagee desire to enter into this
Agreement;

NOW THEREFORE, in consideration of the sum of ten dollars
paid by each party hereto to the other the receipt and
sufficiency of which is hereby acknowledged, and in
consideration of the mutual agreements herein, the parties
hereto agree as follows:

1. Tenant agrees that the Lease, together with all
extensions, amendments and other modifications thereof,
is and shall be subject and subordinate in all respects
to the Mortgage, and to all extensions, amendments,
consolidations, replacements and other modifications
thereof, and to all obligations now or hereafter secured
thereby.

2. Mortgagee agrees that, as long as Tenant is not in default under the Lease beyond any applicable grace, cure or notice period provided in the Lease, in the event Mortgagee commences an action or proceeding to foreclosure the Mortgage, Mortgagee shall not terminate the Lease or disturb Tenant's possession under the Lease for the full term thereof, as the same may hereafter be extended by the exercise of any options to extend now provided therein.

3. Tenant agrees that it shall attorn to and recognize any transferee pursuant to a foreclosure of the Mortgage or by transfer in lieu of foreclosure, and the successors and assigns of any such transferee (any such transferee and its successors and assigns being a "Successor Landlord"), as the landlord under the Lease for the balance of the term thereof, as the same may hereafter be extended by the exercise of any options to extend now provided therein.

4. In the event that a Successor Landlord succeeds to the interest of Landlord under the Lease, such Successor Landlord shall not be (a) liable for any act or omission of Landlord, (b) liable for the return of any security deposit held by Landlord, except to the extent if any that such security deposit shall actually be received by Successor Landlord, (c) bound by any rent or additional rent which Tenant may have paid to Landlord for more than the current month, except to the extent if any that such rent for more than the current month shall actually be received by Successor Landlord, or (d) bound by any modification of the Lease made without the written consent of Mortgagee (prior to foreclosure or transfer in lieu of foreclosure) or (thereafter) Successor Landlord.

5. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, shall be governed by and construed in accordance with the laws of the jurisdiction in which the Premises is located, may not be waived or modified except by an instrument in writing signed by the party against whom the waiver or modification is to be enforced, and may be signed in any number of counterparts.

Signatures on next page.
No further text on this page.

Local Law Provisions

1. The Secured Obligations shall mature on or before July 15, 2010.
2. The Mortgagor shall observe, perform and comply with all applicable requirements of the Indiana Responsible Property Transfer Law.
3. The term "Secured Obligations" as defined in the Mortgage shall include, without limitation, any judgment(s) or final decree(s) rendered to collect any money obligations of Mortgagor to Mortgagee and/or to enforce the performance or collection of all covenants, agreements, other obligations and liabilities of the Mortgagor under the Mortgage or any or all of the Class A Indenture Documents.
4. To the extent the laws of the State of Indiana limit (i) the availability of the exercise of any of the remedies set forth in the Mortgage, including without limitation the remedies involving a power of sale on the part of Mortgagee and the right of Mortgagee to exercise self-help in connection with the enforcement of the terms of this Mortgage, or (ii) the enforcement of waivers and indemnities made by Mortgagor, such remedies, waivers, or indemnities shall be exercisable or enforceable, any provisions in this Mortgage to the contrary notwithstanding, if, and to the extent, permitted by the laws in force at the time of the exercise of such remedies or the enforcement of such waivers or indemnities without regard to the enforceability of such remedies, waivers or indemnities at the time of the execution and delivery of this Mortgage.
5. Anything contained in I.C. 32-8-16-1.5 to the contrary notwithstanding, no waiver made by Mortgagor in this Mortgage or in any of the other terms and provisions of the Class A Indenture Documents shall constitute the consideration for or be deemed to be a waiver or release by Mortgagee or any judgment holder of the indebtedness or obligations secured by the Mortgage of the right to seek a deficiency judgment against the Mortgagor or any other person or entity who may be personally liable for the indebtedness or obligations hereby secured, which right to seek a deficiency judgment is hereby reserved, preserved and retained by Mortgagee for its own behalf and its successors and assigns.
6. Part of the Mortgaged Property is or may become fixtures. It is intended that, as to such fixtures, this Mortgage shall be effective as a financing statement filed as

a fixture filing from the date of the filing of the Mortgage for record with the Recorder of Boone County, Indiana. The information provided in this paragraph is provided in order that the Mortgage shall comply with the requirements of the Uniform Commercial Code as enacted in the State of Indiana, for a mortgage instrument to be filed as a financing statement. The Mortgagor is the "Debtor" and its name and mailing address are set forth in the preamble of this Mortgage. The "Secured Party" is the Mortgagee and its name and mailing address from which information concerning the security interest granted herein may be obtained are as set forth in the preamble of this Mortgage. A statement describing the portion of the Mortgaged Property comprising the fixtures hereby secured is set forth herein.

7. It is the intention of the parties hereto that this Mortgage shall constitute a security agreement within the meaning of the Uniform Commercial Code IC-26-1-9 (the "UCC"). If an Event of Default and be continuing shall occur under this Mortgage, then in addition to having any other right or remedy available at law or in equity, Mortgagee shall have the option pursuant to IC 26-1-9-501 of either (i) proceeding under the UCC and exercising such rights and remedies as may be provided to a secured party by the UCC with respect to all or any portion of the Mortgaged Property that is not real property (including, without limitation, taking possession of and selling such property) or (ii) treating such property as real property and proceeding with respect to both the real and personal property constituting the Mortgaged Property in accordance with Mortgagee's rights, powers and remedies with respect to the real property (in which event the default provisions of the UCC shall not apply).

8. Where any provision of this Mortgage is inconsistent with any provision of Indiana law regulating the creation or enforcement of a lien or security interest in real or personal property including, but not by way of limitation, IC 32-15 Mortgage Foreclosure Actions and the UCC, the provisions of such Indiana law, as amended from time to time, shall take precedence over the provisions of this Mortgage, but shall not invalidate or render unenforceable any other provisions of this Mortgage that can be construed in a manner consistent with Indiana law. Notwithstanding any provision in this Mortgage relating to a power of sale or other provision for sale of the Mortgaged Property upon default other than under a judicial proceeding, any sale of the Mortgaged Property pursuant to this Mortgage will be made through a judicial

proceeding, except as otherwise may be permitted under the UCC.

9. Notwithstanding anything contained herein or in the Indenture to the contrary, this Mortgage and the creation, validity, perfection, priority and enforceability of the lien and security interest created hereby, all warranties of title contained herein with respect to the Mortgaged Property and all provisions hereof relating to the realization of the security covered hereby with respect to the Mortgaged Property shall be governed by the law of the State of Indiana.

10. If (a) the Mortgaged Property shall consist of one or more parcels, whether or not contiguous and whether or not located in the same county, or (b) in addition to this Mortgage, Mortgagee shall now or hereafter hold one or more additional mortgages, liens, deeds of trust or other security (directly or indirectly) to secure the payment and performance of the Secured Obligations upon other property in the State of Indiana (whether or not such property is owned by Mortgagor or by others) or (c) both the circumstances described in clauses (a) and (b) shall be true, then to the fullest extent permitted by law, Mortgagee may, at its election, commence or consolidate in a single foreclosure action all foreclosure proceedings against all such collateral securing the Secured Obligations (including the Mortgaged Property), which action may be brought or consolidated in the courts of any county in which any of such collateral is located. Mortgagor acknowledges that the right to maintain a consolidated foreclosure action is a specific inducement to Mortgagee to extend the Secured Obligations by this Mortgage, and Mortgagor expressly and irrevocably waives any objections to the commencement or consolidation of the foreclosure proceedings in a single action and any objections to the laying of venue or based on the grounds of forum non conveniens that it may now or hereafter have. Mortgagor further agrees that if Mortgagee shall be prosecuting one or more foreclosure or other proceedings against a portion of the Mortgaged Property or against any collateral other than the Mortgaged Property, which collateral directly or indirectly secures the Secured Obligations, or if Mortgagee shall have obtained a judgment of foreclosure and sale or similar judgment against such collateral, then, whether or not such proceedings are being maintained or judgments were obtained inside or outside the State of Indiana, Mortgagee may commence or continue foreclosure proceedings and exercise its other remedies granted in this Mortgage against all or any part of the

Mortgaged Property, and Mortgagor waives any objections to the commencement or continuation of a foreclosure of this Mortgage or exercise of any other remedies hereunder based on such other proceedings or judgments, and waives any right to seek to dismiss, stay, remove, transfer or consolidate either any action under this Mortgage or such other proceedings on such basis. Neither the commencement nor continuation of proceedings to foreclosure this Mortgage nor the exercise of any other rights hereunder nor the recovery of any judgment by Mortgagee in any such proceedings shall prejudice, limit or preclude Mortgagee's right to commence or continue one or more foreclosure or other proceedings or obtain a judgment against any other collateral (either inside or outside the State of Indiana) that directly or indirectly secures the Indebtedness, and Mortgagor expressly waives any objections to the commencement of, continuation of, or entry of a judgment in such other proceedings or exercise of any remedies in such proceedings based upon any action or judgment connected to this Mortgage, and Mortgagor also waives any right to seek to dismiss, stay, remove, transfer or consolidate either such other proceedings or any action under this Mortgage on such basis. It is expressly understood and agreed that, to the fullest extent permitted by law, Mortgagee may, at its election, cause the sale of all collateral that is the subject of a single foreclosure action at either a single sale or at multiple sales conducted simultaneously and take such other measures as are appropriate in order to effect the agreement of the parties to dispose of and administer all collateral securing the Secured Obligations (directly or indirectly) in the most economical and least time-consuming manner.

11. Mortgagor acknowledges and agrees that the Secured Obligations are secured by the Mortgaged Property and various other collateral including, without limitation, at the time of execution of this Mortgage certain personal property of Mortgagor and other parties described in the Indenture. Mortgagor specifically acknowledges and agrees that the Mortgaged Property, in and of itself, if foreclosed or realized upon may not be sufficient to satisfy the outstanding amount of the Secured Obligations.

Accordingly, Mortgagor acknowledges that it is in Mortgagor's contemplation that, if such be the case, if an Event of Default shall have occurred and be continuing the other collateral pledged to secure the Secured Obligations may be pursued by Mortgagee in separate proceedings in the various states and counties where such collateral may be located and

additionally that Mortgagor and other parties liable for payment of the Secured Obligations will remain liable for any deficiency judgments in addition to any amounts Mortgagee may realize on sales of other property or any other collateral given as security for the Secured Obligations. Specifically, and without limitation of the foregoing, it is agreed that it is the intent of the parties hereto that in the event of a foreclosure of this Mortgage, that the Secured Obligations evidencing the obligations shall not be deemed merged into any judgment of foreclosure, but shall rather remain outstanding to the fullest extent permitted by applicable law. It is the further intent and understanding of the parties that Mortgagee, if an Event of Default shall have occurred and be continuing, may pursue all of its collateral with the Secured Obligations remaining outstanding and in full force and effect notwithstanding any judgment of foreclosure or any other judgment which Mortgagee may obtain.

12. To the extent necessary to interpret this Mortgage, the provisions of the Indenture are hereby incorporated by reference into this Mortgage with the same effect as if set forth herein. In the event that any such incorporated provisions of the Indenture are inconsistent with the provisions hereof, the provisions of the Indenture shall govern and control to the extent of the inconsistency; provided, however, the provisions of Paragraph 10 of this Appendix A shall govern and control in all circumstances, anything in the Mortgage and Indenture to the contrary notwithstanding. In the event that there shall be any ambiguity or inconsistency between any terms of this Mortgage and the corresponding terms of the Indenture, the terms of the Mortgage shall govern and control to the extent of the ambiguity or inconsistency.

13. Without limiting the scope of the assignment of Rents contained in Section 1.09 of the Mortgage, the assignment of Rents set forth therein shall constitute an assignment of rents as set forth in Ind. Code 32-1-2-16.3 and thereby creates a security interest in the Rents that will be perfected upon the recording of this Mortgage.

14. Subject to the terms and provisions of the Mortgage, if an Event of Default shall have occurred and be continuing, Mortgagor hereby irrevocably consents to the appointment of a receiver and waives notice of any application therefore, which receiver, when duly appointed, shall have all of the powers and duties of receivers pursuant to Ind. Code 34-12, as amended from time to time.

2003-29844

15. Mortgagor hereby represents and agrees that the Secured Obligations evidenced by the Indenture and secured by this Mortgage are being obtained for business or commercial purposes, and the proceeds thereof will not be used for personal, family, residential, household or agricultural purposes.

16. Anything contained in the Mortgage to the contrary notwithstanding, the obligations of Mortgagor hereunder shall be limited to a maximum aggregate amount equal to the greatest amount that would not render Mortgagor's obligations hereunder subject to avoidance as a fraudulent transfer or conveyance under Section 548 of the Title 11 of the United States Code or any provisions of applicable Indiana law (collectively, the "Fraudulent Transfer Laws"), in each case after giving effect to all other liabilities of Mortgagor, contingent or otherwise, that are relevant under the Fraudulent Transfer Laws.

MATERIAL SAFETY DATA SHEET

APPROVED BY U.S. DEPARTMENT OF LABOR, ESSENTIALLY SIMILAR TO FORM OSHA20
OSHA 1910.1200 - HAZARD COMMUNICATION

The Steco Corporation
2330 Cantrell Road
Post Office Box 2238
Little Rock, Arkansas 72203
Telephone No.: 1-800-643-8026
Emergency Phone: 1-501-375-5644

SIC#: 2899

TRADE NAME: Tap Magic Cutting Fluid

CHEMICAL NAME & SYNONYMS: Hydrocarbon Mixture

DOT SHIPPING NAME: (1,1,1-Trichloroethane) Methyl Chloroform.

Class: ORM-A Non-hazardous material

IATA SHIPPING NAME: No hazard label required, no limit on quantity, 49 CFR,
172.101: I.D. No. UN2831

I. HAZARDOUS INGREDIENTS

MATERIAL	CAS #	WT. (%)	TVL (ppm)
Inhibited 1,1,1-Trichloroethane	71-55-6	80 min.	350
Petroleum Distillate			
(Aliphatic Oil)	68815-10-1	10 max.	not applicable
Vegetable Oil, Essential	104-55-2	10 max.	not applicable

II. PHYSICAL DATA

BOILING RANGE, (760 mm, Mercury:)	:	158-190 °F (70-80 °C)
SPECIFIC GRAVITY (Water=1)	:	1.35
VAPOR PRESSURE (mm of Mercury) @ 68°F	:	100
VAPOR DENSITY (air=1)	:	4.55
SOLUBILITY IN WATER, % by weight	:	Insoluble
EVAPORATION RATE (Butyl Acetate=1)	:	0.6 gal/sq. ft/day @ 76.6°F (24.4°C)
% VOLATILE BY VOL.	:	Greater than 80%
APPEARANCE	:	Amber liquid, non-aqueous
ODOR	:	Aromatic

III. FIRE & EXPLOSION DATA

FLASH POINT, TOC, TCC, PMCC	:	None
AUTOIGNITION TEMPERATURE	:	None
EXTINGUISHING MEDIA	:	Product is not flammable
SPECIAL FIRE FIGHTING PROCEDURES	:	Product will not sustain combustion
UNUSUAL FIRE AND EXPLOSION HAZARD	:	Product does not present any fire
	:	hazard, however, when concentrated
	:	vapors are exposed to open flames or
	:	high energy electrical arcs, irritating
	:	and toxic gasses (HCl) may be formed.

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IV. HEALTH HAZARD INFORMATION

ROUTES OF EXPOSURE

INHALATION: Concentrations in excess of 2,600 ppm for 15 minutes may cause loss of coordination. Concentrations in excess of 20,000 ppm may cause death from respiratory depression.

SKIN CONTACT: Prolonged or repeated exposure may cause defatting of the skin and subsequent rash or other irritation.

SKIN ABSORPTION: Skin absorption can occur; however, skin absorption presents no significant problem in ordinary usage.

EYE CONTACT: Can cause slight pain and irritation.

INGESTION: Estimated for man: LD50= 16 g/Kg.

EFFECTS OF ACUTE OVEREXPOSURE

VIA INHALATION - Light headedness, eye irritation.

EFFECTS OF CHRONIC OVEREXPOSURE

No permanent injury as the result of the chronic exposure has been reported. Product is excreted unchanged via the respiratory tract.

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush eyes with large amounts of water. Supportive treatment is recommended by physician.

SKIN: Wash with mild soap and water. Remove wetted clothing until dry.

INHALATION: Remove to fresh air. Individuals showing pronounced anesthetic effects may require artificial respiration & oxygen. Epinephrine & other drugs with similar activity should not be administered.

INGESTION: Vomiting should be induced with salt or soapy water; mustard water and tickling the throat with the forefinger. Aspiration of the vomitus can cause pulmonary complications and thus must be avoided if possible. No specific antidote is known and treatment is usually symptomatic.

NOTES TO PHYSICIAN

EYES: May cause Conjunctivitis, stain for evidence of corneal injury.

SKIN: May cause mild irritation, chronic exposure defatting type of Dermatitis, treat as any contact Dermatitis. Not likely to be absorbed in acutely toxic amounts.

RESPIRATORY: Anesthetic or narcotic effect may occur, administer oxygen if available. Bronchodilators, expectorants, and antitussives may be of help.

ORAL: Low in toxicity. May cause reaction similar to petroleum or petroleum-like solvent. Danger of chemical pneumonia must be weighed against toxicity when considering emptying the stomach. If lavage is performed

(Notes to Physician Cont.)

: suggest endotracheal and/or esophagoscopy control
: **SYSTEMIC:** May increase myocardial irritability. Avoid
: Epinephrine or similar acting drugs if at all
: possible. Consult standard literature. No specific
: antidote. Treatment based on the sound judgment of
: the physician and the individual reactions of the
: patient.

V. REACTIVITY DATA

STABILITY: The product is very stable under most conditions. Prolonged storage in contact with water may cause some decomposition and the formation of hydrochloric acid (when storing @ temperatures in excess of 150°F). Thermal Decomposition begins at 325-425°C or 620-800°F.

INCOMPATIBILITY: Magnesium and aluminum are attacked at elevated temperatures. Polystyrene, cellulose acetate propionate and polycarbonate plastics are dissolved. Softens asphalt, swells natural or Buna rubber.

HAZARDOUS DECOMPOSITION PRODUCTS: When exposed to open flames (welding torches) or high energy electric arcs, product may decompose yielding hydrogen chloride (HCl) gas.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: None

VI. DISPOSAL, SPILL OR LEAK PROCEDURES

AQUATIC TOXICITY : The product has a low biochemical oxygen demand (BOD),
: does not interfere with biological treatment, and is
: easily aerated out of water solutions. The odor
: threshold in water solution is 350 ppm.

WASTE DISPOSAL METHOD : Accomplished by allowing the material to evaporate to
: the atmosphere out of doors at a reasonable distance
: from work or other inhabited areas. This evaporation
: process may be accelerated by pouring over porous sur-
: faces such as sand. Do not contaminate ground water,
: surface waters or water supplies.

SPILL OR LEAK PROCEDURES: Small spills (less than 1 quart) can be cleaned up with
: mop or rags or other absorbent material. Soaked rags
: should be placed out of doors until dry. Large spills
: (several gallons) can be washed to ground with water and
: allowed to evaporate. Doors and windows should be open.
: Wetted clothing should be removed and allowed to dry.

NEUTRALIZATION CHEMICALS: Product may be absorbed with activated charcoal.

VII. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS: Normal ventilation with regular use to maintain the TLV below recommended values (350 ppm).

SPECIFIC PERSONAL

PROTECTIVE EQUIPMENT: Respiratory: None during normal use
Eye: Single safety glasses to cup-type goggles.
(precautionary measure due to machining operations.)
Gloves: Synthetic rubber gloves, aprons and overshoes
may be necessary to prevent excessive skin contact when dealing with large spills (many gallons).
Other Clothing and Equipment: None required

VII. SPECIAL PRECAUTIONS

Use with adequate ventilation. Avoid prolonged or repeated breathing of vapors. Avoid prolonged or repeated contact with skin. DO NOT TAKE INTERNALLY. The original or other steel containers are recommended for storage and use of the product. At elevated temperatures, aluminum may be corroded and therefore, aluminum is not recommended for containers. Ideally, a cool, dry well ventilated storage area should be selected, however, a properly sealed container may be stored under higher ambient temperatures (150°F) and humidity conditions without concern. Shelf life is indefinite at ambient temperatures.

IX. ADDITIONAL REGULATORY CONCERNS

1,1,1-trichloroethane has been included by the EPA in a list of chemical compounds designated as hazardous waste materials. This organic compound is highly volatile and readily evaporates to the atmosphere. As a consequence, the potential for contaminating an otherwise non-hazardous waste with 1,1,1-trichloroethane originating from operations utilizing TAP MAGIC consumed during various machining operations along with the small quantity generator exemption of 1000 kg of hazardous waste per month (Fed. Reg. Vol. 45, No. 98, Section 261.5) renders 1,1,1-trichloroethane under these circumstances an unlikely candidate for evaluating industrial wastes under the EPA criteria for hazardous waste identification.

ADDITIONAL INFORMATION: TAP MAGIC does not contain Nitrites, Nitrite Derivatives, Amines, Polynuclear Aromatic Compounds or Benzene either as an ingredient or a trace contaminant.

MANUFACTURING CODE NO.: 8358

COMMODITY CODE NO.: 332-9150

Prepared By: Asa L. Morton Date: SPM 11-19-85
Title : Chief Chemist
Company : American Interplex Corporation
Address : 3400 Asher Avenue, Little Rock, Arkansas 72204 (501) 664-5060

CRITICAL MATERIALS REGISTER

Certification Applicable to Various State Right to Know Laws

The Steco Corporation

Product Name: **TAP MAGIC** Cutting Fluid

The above named product does not contain any of the chemicals listed below, either as an ingredient or as a trace contaminant. (Except for 1,4-Dioxane, see Page 2)

I. Inorganic Materials

A. The following inorganic materials and all their compounds are to be reported.

	PARAMETER NUMBER	%/WT.
Antimony	Class-01-0	_____
Arsenic	Class-01-1	_____
Beryllium	Class-01-2	_____
Cadmium	Class-01-3	_____
Chromium	Class-01-5	_____
Cobalt	Class-01-6	_____
Copper	Class-01-7	_____
Cyanides	Class-01-8	_____
Hypochlorite	Class-01-4	_____
Lead	Class-01-9	_____
Lithium	Class-02-0	_____
Mercury	Class-02-1	_____
Nickel	Class-02-2	_____
Selenium	Class-02-3	_____
Silver	Class-02-4	_____
Zinc	Class-02-7	_____

B. The following specific inorganic materials are to be reported (do not report compounds).

Chloramines	Class-08-6	_____
Chlorine	07782-50-5	_____
Hydrazine	00302-01-2	_____
Hydrogen Sulfide	07783-06-4	_____

II. Organic Materials

Acefon Cyanohydrin	00075-86-5	_____
2-Acetylaminofluorene	00053-96-3	_____
Acrolein	00107-02-8	_____
Acrylic Acid	00079-10-7	_____
Acrylonitrile	00107-13-1	_____
Allyl Chloride	00107-05-1	_____
2-Aminoanthraquinone	00117-79-3	_____
Aminoazobenzene	00060-09-3	_____
o-Aminoazotoluene	00097-56-3	_____
4-Aminobiphenyl	00092-67-1	_____
3-Amino-9-Ethylcarbazole	00132-32-1	_____

	PARAMETER NUMBER	%/WT.
1-Amino-2-Methylantraquinone	00082-28-0	_____
Aminotriazole (Amitrole)	00061-82-5	_____
Aniline	00062-53-3	_____
o-Anisidine	00090-04-0	_____
o-Anisidine Hydrochloride	00134-29-2	_____
Benz(a)anthracene	00056-55-3	_____
Benzene	00071-43-2	_____
Benzidine	00092-97-5	_____
Benzidine Salts	Class-08-7	_____
Benzo(a)pyrene	00050-32-8	_____
Brucine	00357-57-3	_____
Carbon Tetrachloride	00056-23-5	_____
Chlorinated Dibenzofurans	Class-05-3	_____
Chlorinated Dioxins	Class-05-4	_____
1-Chloro-2,3-Epoxypropane	00106-89-8	_____
Bis (2-Chloroethyl) ether	00111-44-4	_____
Chloroform	00067-66-3	_____
Bis (Chloromethyl) ether	00542-88-1	_____
3-(Chloromethyl) Pyridine Hydrochloride	06959-48-4	_____
P-Chlorophenol	00106-48-9	_____
1-(4-Chlorophenyl)-3, 3-dimethyl triazene	07203-90-9	_____
4-Chloro-M-Phenylenediamine	05131-60-2	_____
4-Chloro-O-Phenylenediamine	00095-83-0	_____
Chloroprene	00126-99-8	_____
5-Chloro-O-Toluidine	00095-79-4	_____
P-Cresidine (5-Methyl-O-Anisidine)	00120-71-8	_____
2,4-diaminoanisole Sulfate	39156-41-7	_____
4,4'-Diaminodiphenyl Ether	00101-80-4	_____
2,4-Diaminotoluene	00095-80-7	_____
Dibenz (a,h) anthracene	00053-70-3	_____
Tris (Dibromopropyl) Phosphate	00126-72-7	_____
Di-N-Butyl Phthalate	00084-74-2	_____
3,3'-Dichlorobenzidine	00091-94-1	_____
3,3'-Dichlorobenzidine Salts	Class-08-8	_____
1,2-Dichloroethane	00107-06-2	_____
2,4-Dichlorophenol	00120-83-2	_____
1,2:3,4-Diepoxybutane	00298-18-0	_____
Diethyl Sulfate	00064-67-5	_____
4-Dimethylaminoazobenzene	00060-11-7	_____
Dimethylhydrazines	Class-06-2	_____
4,6-Dinitro-O-Cresol	00534-52-1	_____
Dinitrophenol	00051-28-5	_____
2,4-Dinitrotoluene	00121-14-2	_____

	PARAMETER NUMBER	%WT.		PARAMETER NUMBER	%WT.
Di-N-Octyl Phthalate	00117-84-0		N-Nitroso-Di-N-Butylamine	00924-16-3	
1,4-Dioxane	00123-91-1	3.5	N-Nitrosodiethylamine	00055-18-5	
2,3-Epoxy-1-Propanal	00765-34-4		N-Nitrosodimethylamine	00062-75-9	
Ethylene Dibromide	00106-93-4		P-Nitrosodiphenylamine	00156-10-5	
Ethyleneimine	00151-56-4		N-Nitroso-N-Ethylurea	00759-73-9	
Ethylene Oxide	00075-21-8		N-Nitroso-N-Methylurea	00684-93-5	
Ethylene Thiourea	00096-45-7		N-Nitroso-N-Methylurethane	00615-53-2	
Bis (2-Ethylhexyl) Phthalate	00117-81-7		N-Nitrosomorpholine	00059-89-2	
Ethylmethanesulfonate	00062-50-0		N-Nitroso-N-Phenylhydroxylamine, Ammonium Salt	00135-20-6	
2-(2-Formylhydrazino)-4-(5-Nitro-2- furyl)-Thiazole	03570-75-0		N-Nitrososarcosine	13256-22-9	
Hexachlorobenzene (HCB)	00118-74-1		Pentachloronitrobenzene	00082-68-8	
Hexachlorobutadiene	00087-68-3		Pentachlorophenol	00087-86-5	
Hexachlorocyclohexane	00608-73-1		Peroxyacetic Acid	00079-21-0	
Hexachlorocyclopentadiene	00077-47-4		Piperonyl Sulfoxide	00120-62-7	
Hexachloroethane	00067-72-1		Polybrominated Biphenyls (PBB)	Class-07-8	
Hydrazobenzene	00122-66-7		Polychlorinated Biphenyls (PCB)	Class-07-9	
Hydroquinone	00123-31-9		1,3-Propane Sultone	01120-71-4	
N-(2-Hydroxyethyl) Ethyleneimine	01072-52-2		B-Propiolactone	00057-57-8	
Lactonitrile	00078-97-7		5-Propyl-1,3-Benzodioxole	00094-58-6	
Malachite Green (C.I. Basic Green 4)	00569-64-2		Propyleneimine	00075-55-8	
Methylenebis (2-Chloroaniline)	00101-14-4		Semicarbazide	00057-56-7	
4,4'-Methylenebis (2-Methylaniline)	00838-88-0		Styrene	00100-42-5	
4,4'-Methylenebis (N,N-Dimethylaniline)	00101-61-1		1,1,2,2-Tetrachloroethane	00079-34-5	
1,2-(Methylenedioxy)-4-Propenyl Benzene	00120-58-1		Tetrachloroethylene (Perchloroethylene)	00127-18-4	
Methyl Hydrazine	00060-34-4		Thioacetamide	00062-55-5	
Methyl Mercaptan	00074-93-1		4,4'-Thiodianiline	00139-65-1	
1-Methylnaphthalene	00090-12-0		Thiourea	00062-56-6	
2-Methyl-1-Nitroanthraquinone	00129-15-7		O-Toluidine	00095-53-4	
Mustard Gas	00505-60-2		O-Toluidine Hydrochloride	00636-21-5	
1,5-Naphthalenediamine	02243-62-1		Triaryl Phosphate Esters	Class-08-4	
1-Naphthylamine	00134-32-7		1,1,2-Trichloroethane	00079-00-5	
2-Naphthylamine	00091-59-8		Trichloroethylene	00079-01-6	
5-Nitroacenaphthene	00602-87-9		2,4,5-Trichlorophenol	00095-95-4	
5-Nitro-O-Anisidine	00099-59-2		2,4,6-Trichlorophenol	00088-06-2	
4-Nitrobiphenyl	00092-93-3		2,4,5-Trimethylaniline	00137-17-7	
Nitrogen Mustard	00051-75-2		Trimethylphosphate	00512-56-1	
N-Nitroso-N-Butyl-N-(4-Hydroxybutyl) Amine	03817-11-6		Xylene	01330-20-7	

Signed by

D. H. T. Chemist

Date

11-19-85

ZURN00044

OPEN & SHUT DA 6151

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

MANUFACTURED FOR:
Drummond American Corporation
600 Corporate Woods Pkwy.
Vernon Hills, IL 60061

IN CASE OF EMERGENCY CALL:
ROCKY MOUNTAIN POISON & DRUG CENTER
COLLECT AT: (303) 623-5716

DATE OF PREPARATION:
02/01/90

INFORMATION TELEPHONE NUMBER
(847) 913-9313

SECTION I - IDENTITY

PRODUCT NUMBER DA 6151
PRODUCT NAME OPEN & SHUT
PRODUCT CLASS SOLVENTS

SECTION II - INGREDIENTS

INGREDIENT	CAS NUMBER	%	ACGIH TLV PPM	MG/ M ³	PEL PPM	STEL PPM
PETROLEUM DISTILLATE	64742-47-8	5-20	500	ND	ND	ND
PETROLEUM OIL	64742-52-5	5-20	ND	5	ND	ND
TRICHLOROETHYLENE *	79-01-6	50-75	50	ND	50	100
CARBON DIOXIDE	124-38-9	1-5	5000	ND	10M	30M

* THIS CHEMICAL IS SUBJECT TO
S.A.R.A. TITLE III SECTION 313
REPORTING

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT (degrees F): 165
VAPOR DENSITY: Heavier than air
EVAPORATION RATE: > Butyl Acetate
PERCENT VOLATILE (By Weight): N/A
WEIGHT PER GALLON (LBS): 10.33

OPTIONAL INFORMATION:
Appearance/ Odor: Clear brown liquid, sweet odor.
Specific Gravity (Water=1): 1.24
Solubility in Water: Negligible
Vapor Pressure (mm Hg): 89
CALIFORNIA PROPOSITION 65 WARNING: THIS PRODUCT CONTAINS A CHEMICAL
KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

OPEN & SHUT DA 6151

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION:
OSHA CLASS N/A
DOT CLASS ORH-D
U.N. CLASSIFICATION:
PER DOT N/A
PER IMCO N/A

FLASH POINT: N/A

LEL: 7.0

UEL: 13.0

METHOD: TAG CLOSED CUP

AEROSOL PRODUCT: TREAT AS CYLINDER OF COMPRESSED GAS

EXTINGUISHING MEDIA: WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS:

At elevated temperatures (over 120°F) containers may vent, rupture, or burst.

SPECIAL FIRE FIGHTING PROCEDURE:

Keep containers cool. Use shielding to protect personnel against bursting, rupturing or venting containers. Wear a positive pressure self-contained breathing apparatus.

SECTION V - REACTIVITY DATA

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARD DECOMPOSITION PRODUCTS:

Hydrogen chloride, oxides of carbon, and minute traces of phosgene and chlorine may be formed upon combustion or thermal decomposition.

CONDITIONS TO AVOID:

None Known.

INCOMPATIBILITY (MATERIALS TO AVOID):

Strong bases, oxidizing materials, metallic aluminum, and zinc powders.

D.O.T. EMERGENCY RESPONSE INFORMATION:

NOT APPLICABLE

OPEN & SHUT
DA 6151

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

Eyes/Skin: Irritation may occur.
Inhalation: Irritation to the respiratory tract, dizziness, confusion, fainting, increased myocardial irritability, Central Nervous System depression may occur.

PRIMARY ROUTE(S) OF ENTRY: DERMAL INHALATION

MEDICAL CONDITIONS PRONE TO OVEREXPOSURE:

Heart rhythm disorders. Increased sensitivity to Epinephrine.

TARGET ORGANS AFFECTED:
Kidneys and Liver.

CARCINOGENICITY:

NTP - NO OSHA - NO IARC - YES (2A-PROBABLY CARCINOGENIC)

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: Remove contacts. Flush eyes with plenty of water while holding eyelids open.
SKIN CONTACT: Remove contaminated clothing, then wash affected skin with soap and water.
INHALATION: Remove victim to fresh air and maintain breathing.
If irritation continues or develops later, seek medical attention.

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Provide adequate ventilation. Remove sources of flame, spark or heat.
Soak up spill with an absorbent material and place in a container for proper disposal.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state, and federal regulations.
Do not puncture or incinerate container.

OPEN & SHUT
DA 6151

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO OSHA FORM 174

SECTION VIII - SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION:

None required if good ventilation is maintained. If the TLV is exceeded, use a NIOSH-approved respirator.

VENTILATION:

Local exhaust is adequate under normal conditions.
Mechanical ventilation is optional.

PROTECTIVE GLOVES:

Gloves which are impervious to the ingredients found in this product are recommended.

EYE PROTECTION:

Safety glasses or goggles are recommended.

OTHER PROTECTIVE EQUIPMENT:

Wear impervious clothing to prevent skin contact.

HYGIENIC PRACTICES:

WASH HANDS BEFORE EATING OR USING THE WASHROOM. SMOKE
IN SMOKING AREAS ONLY.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Warning: contents under pressure. Keep out of reach of children. Do not expose to direct sunlight or store at room temperatures above 120°F. Avoid breathing vapors and contact with eyes or skin.

OTHER PRECAUTIONS:

Read and follow directions on the product label.

SECTION X - OTHER INFORMATION

HEALTH FLAMMABILITY REACTIVITY
2
1
0

PREPARED BY: Heather Buck

Drummond American Corporation
600 Corporate Woods Parkway
Vernon Hills, Illinois 60061

TLV	Threshold Limit Value	NO	No Data	..HFA HAZARD INDEX..
PEL	Permissible Exposure Level	LEL	Lower Explosive Level	SEVERE HAZARD 4
HFA	National Fire Protection Association	HIE	Not Established	SERIOUS HAZARD 3
CAS	Chemical Abstract Service	PPH	Parts Per Million	MODERATE HAZARD 2
HIP	National Toxicology Program	D.O.T.	Department of Transportation	SLIGHT HAZARD 1
OSHA	Occupational Safety and Health Admin.	H/A	Not Applicable	MINIMAL HAZARD 0
IARC	International Agency for Research on Cancer	H*3	Approximate milligrams of substance per cubic meter of air	
STEL	Short Term Exposure Limit, duration is for 15 minutes			

ZURN00046

MATERIAL SAFETY DATA SHEET

7437K14, K15

NFPA DESIGNATION 704

CROWN

INDUSTRIAL PRODUCTS CO., INC.

HEBRON, IL. 60034 PHONE 815/648-2424

HAZARD RATING

4=Extreme
3=High
2=Moderate
1=Slight
0=Insignificant

HEALTH

FIRE

REACTIVITY

SPECIFIC HAZARD

No: 230

EMERGENCY NIGHT NUMBER 815-338-2141

I IDENTIFICATION

CHEMICAL NAME

Mixture

FORMULATION NUMBER

163,049AC

TRADE NAME & PRODUCT NUMBER

Switch and Contact Cleaner #8076, 8077

DOT IDENTIFICATION NUMBER

UN-1956

SYNONYMS

NA

II PRODUCT AND COMPONENT DATA

COMPONENT(S) CHEMICAL NAME

CAS
REGISTRY NO.

%(APPROX.)

ACGIH-TLV
TWA STEL
(ppm)OSHA
PEL
(ppm)Listed as a
Carcinogen in
NTP, IARC or
OSHA1910(Z)

Trichlorotrifluoroethane

76-13-1

31-50

1000

-

1000

No

Dichlorodifluoromethane

75-71-8

31-50

1000

-

1000

No

1,1,1, Trichloroethane

71-55-6

11-30

350

450

350

No

III PHYSICAL DATA

APPEARANCE AND ODOR

Clear Colorless/Ethereal Odor

SPECIFIC GRAVITY

>1

BOILING POINT

NA

VAPOR DENSITY IN AIR

>1

VAPOR PRESSURE

Aerosol @ 70°F 45-50 psig

% VOLATILE BY VOLUME

100%

EVAPORATION RATE

(Ether = 1) >1

SOLUBILITY IN WATER

Neg.

IV REACTIVITY DATA

STABILITY

Stable

CONDITIONS TO AVOID

Flames, sparks, electrical arcs.

INCOMPATIBILITY (materials to avoid)

Alkali or alkaline, earth metals such as zinc, aluminum and beryllium.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition will produce halogen acids and small amounts of phosgene.

HAZARDOUS POLYMERIZATION

Will not occur.

ZURN00047

V FIRE AND EXPLOSION HAZARD DATA

<u>FLASH POINT (Method used)</u>	<u>FLAMMABLE LIMITS IN AIR</u>	<u>LEL</u>	<u>UEL</u>
None T.C.C.		7.0	12
<u>EXTINGUISHING AGENTS</u>			

NA

UNUSUAL FIRE AND EXPLOSION HAZARDS

Treat as cylinder of compressed gas.
Firefighters should wear a self-contained positive pressure breathing apparatus.

VI TOXICITY AND FIRST AIDEXPOSURE LIMITS:

See Section II for exposure limit of each individual component.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Persons with cardiac arrhythmia may be at increased risk in severe exposures. Avoid Epinephrine or similar drugs.

ACUTE TOXICITY:

INHALATION: May induce narcosis in high concentrations.

INGESTION: Not likely low toxicity.

EYE CONTACT: Mild to moderate irritation. May cause frostbite if exposed to direct spray.

SKIN CONTACT: Prolonged and repeated contact can cause irritation and dermatitis.

SKIN ABSORPTION: Not readily absorbed through the skin, but may cause frostbite if exposed to direct spray.

FIRST AID

CALL A PHYSICIAN

EYES: Flush with water for 15 minutes or until irritation subsides.

SKIN: Remove all contaminated clothing and wash skin with soap and water.

INHALATION: Remove from exposure immediately. If breathing is irregular or stopped, begin artificial respiration and administer oxygen.

INGESTION: Do NOT induce vomiting.

ZURN00048

CHRONIC TOXICITY

RCINOGENICITY: None

TERATOGENICITY: Not established

MUTAGENICITY: Not established

TARGET ORGAN AFFECTED: • Prolonged exposure above the OSHA permissible exposure limits may result in kidney and liver damage.

VII PERSONAL PROTECTION AND CONTROLS

RESPIRATORY PROTECTION

Respiratory protection program should be in accordance with 29 CFR 1910.134.

VENTILATION

Local exhaust is adequate.

SKIN PROTECTION

Gloves: Polyethylene or Neoprene.

EYE PROTECTION

Safety glasses are recommended.

HYGIENE

Wash skin with soap and water.

OTHER CONTROL MEASURES

Protective clothing and equipment: See 29 CFR 1910.133 & 132.

VIII STORAGE AND HANDLING PRECAUTIONS

AEROSOL CONTAINER: Do NOT store in direct sunlight, near open flames, or at temperatures exceeding 120°F. Do NOT smoke while spraying. Use only as directed. Intentional misuse by deliberately concentrating vapors and inhaling contents can be harmful or fatal.

IX SPILL LEAK AND DISPOSAL PRACTICES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Ventilate area. Remove all sources of ignition. Clean up with inert materials and dispose of in accordance with all Local, State and Federal regulations.

WASTE DISPOSAL METHOD

AEROSOL CONTAINER: Do NOT puncture or incinerate. Empty containers may be disposed of through normal channels. Full or partially filled containers are considered HAZARDOUS WASTE.

X TRANSPORTATION

DOT HAZARD CLASSIFICATION

ORM-D

PLACARD REQUIRED

None

ABEL REQUIRED

ORM-D

SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS #	Chemical Name	Percent by Weight
76-13-1	Trichlorotrifluoroethane	40.0
71-55-6	1,1,1, Trichloroethane	20.0

NAME(print) Robert E. Bayton

SIGNATURE

TITLE Laboratory Supervisor

DATE OF LAST REVISION October 24, 1989

This information must be included in all MSDSs that are copied and distributed for this material.

A HAZARDOUS INGREDIENT IS ONE WHICH MEETS ONE OR MORE OF THE FOLLOWING CRITERIA:

1. It is listed in the annual registry of toxic effects of chemical substances, or is known to be toxic within the parameters of that registry, and is present at a level of 1% or greater of the composition, except that chemicals identified as carcinogens under 29 CFR 1910.1200 (d) (4) shall be listed if the concentrations are 0.1% or greater.
2. It has an OSHA established Permissible Exposure Limits or Ceiling Concentration (C) or an American Conference of Governmental Industrial Hygienists (ACGIH) TLV or C, and by the nature of the product or its known use, is likely to become airborne.
3. It contributes to one or more of the following hazards to the product: A - Flashpoint below 200° F. (CC), or subject to spontaneous heating or decomposition; B - Causes skin burns (DOT); C - Strong oxidizing agent (DOT); D - Subject to hazardous polymerization.

Each hazardous ingredient should be listed by chemical, generic or proprietary name, its level in the product should be expressed as 1% or less, 1-10%, 11-30%, 31-50%, 51-70%, or greater than 70%, or by other means if such information is proprietary. Recommended ACGIH or registry of toxic effects of chemical substances TLV or C values are only listed with appropriate notation, where OSHA values are not available.

CUSTOMER: T0164645
BATCH #: 001610068
ZONE #: RW02
BARCODE #: 1Z4396360300243265
PRODUCT NAME: COND-X AEROSOL

ORDER #: 0104!
STICKER #: 001610689

302 PGE DAY

MATERIAL SAFETY DATA SHEET: COND-X AEROSOL

Page: 1

(-000000- -5212)

DATE OF ISSUE 3/15/1999	SUPERCEDES 2/16/1999
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CA ONLY

SECTION I - GENERAL INFORMATION

Chemical Name & Synonyms
N/A

Trade Name & Synonyms
COND-X AEROSOL

Chemical Family:
CHLORINATED SOLVENT

Formula Mixture --> X

Manufacturer's Name:
CERTIFIED LABS, DIV. OF NCH CORP.

Address:
BOX 152170
IRVING, TEXAS

Prepared By:
L BOYNTON

Product Code Number
5212

Emergency Phone Number
972-438-1381

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS

Chemical Name (Ingredients)	Hazard	TLV	PEL	STEL	CAS #
METHYLENE CHLORIDE	***	50 PPM 1	25 PPM 2	125 PPM	75-09-2
ETHANOL	FLAMM.	1000 PPM 1	1000 PPM 2	N/E	64-17-5
PROPANE	FLAMM.	N/E	10000PPM 2	N/E	74-98-6
ISOBUTANE	FLAMM.	N/E	N/E	N/E	75-28-5

*** IRR/CARC 7,8

SECTION III - PHYSICAL DATA

Boiling Point (f):	78	Specific Gravity (H2O=1):	1.13
Vapor Pressure (MM HG):	235.5	Color:	STRAW
Vapor Density (Air=1):	3.0	Odor:	CHLORINATED
PH @ 100% :	N/A	Clarity:	OPAQUE
% Volatile by Volume:	63	Evaporation Rate (BU A/C-1):	20.4
H2O Solubility:	NEGLECTIBLE	Viscosity:	NON-VISCOUS

SECTION IV - FIRE AND EXPLOSION HAZARD

Flash Point <70 F. / SETAFLASH	Flammable Limits METHYLENE CHLORIDE	LEL 14%	UEL 22%		
Extinguishing Media X ---Foam	X ---Alcohol Foam	X ---CO2	X ---Dry Chemical	---Water Spray	---Other

Special Fire Fighting Procedures:
FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. SPRAY FIRE EXPOSED CONTAINERS TO PREVENT BURSTING. FLAME EXTENSION IS 24 INCHES AND BURNBACK IS 2 INCHES.

Unusual Fire and Explosion Hazards:
PHOSGENE CAN BE FORMED AT TEMPERATURES ABOVE 1000°F. ADDITIONALLY, IF THE VAPORS ARE ALLOWED TO COLLECT AT THE CONCENTRATIONS LISTED ABOVE, & EXPOSED TO AN IGNITION SOURCE, AN EXPLOSION COULD POTENTIALLY RESULT.

Aerosol Level (NFPA 30B):

1

NFPA 704 Hazard Rating (0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

2 ---Health 1 ---Flamability 0 ---Reactivity ---Special

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value:

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II. NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

Effects of Overexposure:

-Acute (Short Term Exposure)

EYE CONTACT: VAPORS MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. LIQUID CAUSES IRRITATION WITH POSSIBLE TRANSIENT CORNEAL INJURY OR PAIN.
SKIN CONTACT: CAUSES IRRITATION SEEN AS REDNESS AND ITCHING. REPEATED OR PROLONGED EXPOSURE MAY CAUSE DEFATTING OF THE SKIN AND DERMATITIS. ABSORPTION OF LIQUID THROUGH INTACT SKIN IS POSSIBLE WITH PROLONGED CONTACT. PROLONGED CONTACT WITH THE LIQUID MAY CAUSE FROSTBITE AND BLISTERING. LIQUID MAY CAUSE SEVERE IRRITATION IF CONFINED TO THE SKIN BY GLOVES. INHALATION: AT LOW LEVELS (200 PPM) INITIAL SYMPTOMS MAY INCLUDE NAUSEA, HEADACHE, Dizziness, LOSS OF CONCENTRATION AND IRRITATION. AT HIGH CONCENTRATIONS: NUMBNESS, TINGLING IN THE ARMS AND LEGS, VOMITING, INCOORDINATION Dizziness AND RAPID HEARTBEAT CAN OCCUR. AT LEVELS 1000PPM, LOSS OF CONSCIOUSNESS AND DEATH CAN OCCUR. CONSUMPTION OF ALCOHOL BEFORE OR AFTER EXPOSURE MAY INCREASE INTENSITY OF THE ADVERSE EFFECTS. INGESTION: MAY CAUSE IRRITATION WITH POSSIBLE NAUSEA, VOMITING, STOMACH CRAMPS AND DIARRHEA IF LARGE AMOUNTS ARE INGESTED. INGESTION AND SUBSEQUENT VOMITING OF THIS PRODUCT CAN LEAD TO ASPIRATION OF THE PRODUCT INTO THE LUNGS WHICH CAN CAUSE DAMAGE AND MAY BE FATAL.

-Chronic (Long Term Exposure)

LONG TERM EXCESSIVE SKIN OR INHALATION EXPOSURE TO METHYLENE CHLORIDE HAS CAUSED CANCER IN LABORATORY ANIMALS AND BEEN DETERMINED TO BE A HUMAN

ZURN00051

SECTION V - HEALTH HAZARD DATA (Continued)

CANCER RISK. REPEATED OR PROLONGED EXPOSURE MAY CAUSE ELEVATION OF THE CARBOXYHEMOGLOBIN LEVELS. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: PRE-EXISTING LIVER, KIDNEY, LUNG, CORONARY, SKIN, AND RESPIRATORY DISEASES, ANEMIA, AND ALCOHOLISM. TARGET ORGANS: LIVER, KIDNEYS, CENTRAL NERVOUS SYSTEM, LIVER, AND HEART

Primary Routes of Entry: X <--Inhalation <--Ingestion X <--Absorption

First Aid Procedures:

-Inhalation:

Remove the person from the area to fresh air. If not breathing, clear the airway and start mouth to mouth artificial respiration. Get immediate medical attention.

-Eye Contact:

Rinse the eyes with water. Remove any contact lenses and continue flushing with plenty of water for several minutes. Seek medical attention if irritation develops.

-Skin Contact:

Wash affected areas with large amounts of soap and water for 15 minutes. Remove contaminated clothing and shoes. Seek medical attention if irritation persists. Wash clothing and clean shoes before reuse.

-Ingestion:

Give 3 to 4 glasses of water, but do not induce vomiting. If vomiting occurs, give fluids again. Get immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.

-Notes to Physician:

Danger of aspiration must be weighed against toxicity when considering emptying the stomach. The decision to induce vomiting should be made by the physician. Using gastric lavage should be considered. Keep patient's head below hips to prevent pulmonary aspiration. If comatose, a cuffed endotracheal tube will prevent aspiration. Adrenaline should not be given to a person overexposed to methylene chloride.

SECTION VI - TOXICITY INFORMATION

Product Contains Chemicals Listed as Carcinogen or Potential Carcinogen By:

IARC--> Yes NTP--> Yes OSHA--> No ACGIH--> No OTHER--> No

METHYLENE CHLORIDE

CARCINOGENESIS:

IHL-HMN TCLO: 500 PPM/LY-1 TFX: CSN 3. ORL-RAT:1275 MG/KG TER,CAR,MUT 9.
IHL-MUS: 4000 PPM/6H-C: CAR 9. INH-RAT:4500PPM/24H(1-17D PREG
IHL-HMN TLCO: 500 PPM/8M TFX: BLD 3. TUMORGENIC 9.
IHL-RAT TCLO: 3500 PPM/6H/2Y-I:CAR 4.

A PROPORTIONATE MORTALITY STUDY SHOWED NO INCREASE IN DEATH FROM MALIGNANT NEOPLASMS AMONG WORKERS EXPOSED FOR UP TO 30 YEARS TO MEAN CONCENTRATIONS WHEN COMPARED TO CONTROL POPULATIONS. 6.

SKN-RB: 810 MG/24H SEV 4.

EYE-RBT 162 MG MOD 4.

ORL-RAT LD50: 2136 MG/KG 4.

INHALATION STUDIES AT CONCENTRATIONS OF 2000 PPM AND 4000 PPM

INCREASED THE INCIDENCE OF BENIGN LIVER AND LUNG TUMORS IN MICE. THREE

INHALATION STUDIES OF RATS HAVE SHOWN INCREASED INCIDENCE AT 500 PPM AND

ABOVE, AND THE SAME IN MALES AT CONCENTRATIONS OF 1500 PPM AND ABOVE. 6.

IARC HAS RECENTLY DETERMINED THAT ETHANOL

IS CARCINOGENIC TO THE LIVER IF INGESTED

OVER A LONG PERIOD OF TIME. ADDITIONALLY,

ORAL CONSUMPTION OF ETHANOL BY PREGNANT WO-

MEN HAS CAUSED DEFORMITIES IN THE FETUS

KNOWN AS FETAL ALCOHOL SYNDROME. 7.

SEE SECTION XIII

SECTION VII - REACTIVITY DATA

Stability: X <--Stable <--Unstable

Incompatibility (Materials to Avoid):

STRONG ACIDS AND ALKALIES, OXYGEN, NITROGEN PEROXIDE, SODIUM, POTASSIUM, LITHIUM, BARIUM, AND OXIDIZING MATERIALS; PLASTICS.

Hazardous Decomposition Products:

HYDROCHLORIC ACID, PHOSGENE GAS, HYDROGEN CHLORIDE, AND CHLORINE GAS, OXIDES OF CARBON.

Hazardous Polymerization:

<--May Occur X <--Will Not Occur

SECTION VIII - SPILL OR LEAK PROCEDURES

Steps to be Taken if Material is Released or Spilled:

DUE TO THE NATURE OF THE AEROSOL PACKAGING, A LARGE SPILL IS UNLIKELY. FOR A SMALL SPILL, VENTILATE THE AREA AND ABSORB WITH AN INERT MATERIAL AND TRANSFER ALL MATERIAL INTO A PROPERLY LABELED CONTAINER FOR DISPOSAL. WEAR PROTECTIVE CLOTHING.

Waste Disposal Method(s):

DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS. TYPICAL DISPOSAL IS TO WRAP THE EMPTY AEROSOL CONTAINER IN SEVERAL LAYERS OF NEWSPAPER AND DISPOSE OF IN THE TRASH. AEROSOL RECYCLING PROGRAMS ARE AVAILABLE IN MANY AREAS. DO NOT PUNCTURE OR INCINERATE THIS CONTAINER.

Neutralizing Agent:

N/A

SECTION IX - SPECIAL PROTECTION INFORMATION

Required Ventilation:

LOCAL VENTILATION IS RECOMMENDED TO CONTROL EXPOSURE FROM OPERATIONS THAT CAN GENERATE MISTS OR VAPORS.

Respiratory Protection:

USE AN MSHA APPROVED RESPIRATOR IN POORLY VENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV OR OSHA PEL.

Protection:

WEAR RUBBER GLOVES SHOULD BE WORN.

Eye Protection:

GOGGLES AND A FACE SHIELD SHOULD BE WORN.

Other Protection:

SECTION IX - SPECIAL PROTECTION INFORMATION (Continued)

SOLVENT-RESISTANT APRON SHOULD BE WORN.

SECTION X - STORAGE AND HANDLING INFORMATION

Temperature: Indoors--> X Outdoors--> Heated--> Refrigerated-->
Maximum Temperature: 100°F

Precautions to be Taken in Handling and Storing:

STORE IN A COOL, DRY WELL-VENTILATED AREA AWAY FROM SUNLIGHT. DO NOT CRUSH OR INCINERATE EMPTY CANS.

Other Precautions:

KEEP OUT OF REACH OF CHILDREN. READ THE ENTIRE LABEL BEFORE USING. FOLLOW THE LABEL DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

Chemical Name	CAS Number	Upper % Limit
METHYLENE CHLORIDE	75-09-2	75

Those ingredients listed above are subject to the reporting requirements of 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

CALIFORNIA PROPOSITION 65

WARNING: This product contains the following chemical(s) known to the State of California to cause (1)Cancer or (2)Birth Defects or other reproductive harm. This product contains:

METHYLENE CHLORIDE (1)

SECTION XII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 1996-1997.
 2. OSHA PEL.
 3. NIOSH REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, 1982.
 4. SAX'S DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, EIGHTH EDITION, RICHARD J. LEWIS, SR.
 5. FRIEDLANDER BR ET AL; JOURNAL OF OCCUPATIONAL MEDICINE 20(10): 657-66, 1978.
 6. VENDOR'S MSDS.
 7. INTERNATIONAL RESEARCH ON CANCER, MONOGRAPHS, 1987.
 8. NATIONAL TOXICOLOGY PROGRAM.
 9. REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES, MICROMEDEX, 1995.
- CONT'D FROM SECTION VI: THE USE OF THIS PRODUCT FOR ITS INTENDED PURPOSE
SHOWN NOT POSE ANY HAZARD OF THIS KIND.
P NO TOXICITY DATA AVAILABLE
E
I LC50: 57 PPM/15M 9.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

CERTIFIED LABS, DIV. OF NCH CORP. assumes no responsibility for personal injury or property damage caused by the use, storage, or disposal of the product in a manner not recommended on the product label. Users assume all risks associated with such unrecommended use, storage, or disposal of the product.

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Product Name ANTI-SEIZE
LUBRICANT (AEROSOL) Part No. 767-59
Product Type _____ Formula No. N/A

II. COMPOSITION

<u>Ingredients</u>	<u>% by Wt.</u>	<u>Hazard</u>
Methylene Chloride*	60-65	Irritant, TLV = 100 ppm
Mineral Oil	20-25	
Copper**	5-10	
Graphite***	5-10	
Aluminum	<3	
Silicon dioxide***	<1	

*Methylene chloride has been shown to cause tumors and reproductive effects in experimental animals on prolonged inhalation. **Copper has been shown to cause tumors in experimental animals by implantation beneath the skin and reproductive effects by high dose ingestion. ***Graphite has been shown to cause reproductive effects in experimental animals by injection beneath the skin. ****Inhalation of pure silicon dioxide dust has been shown to cause pulmonary effects. It is our best technical judgment that, with proper precautions, normal use of this product poses no such hazards.

III. CHEMICAL AND PHYSICAL PROPERTIES

Vapor Pressure <u>~350 mm at 75°F</u>	Specific Gravity <u>Unknown</u>
Vapor Density <u>~2.9</u>	Boiling Point <u>~100°F</u>
Solubility in Water <u>Nil</u>	pH <u>dna</u>
Appearance <u>Metallic Liquid</u>	Odor <u>Mild</u>

IV. TOXICITY AND HEALTH HAZARD DATA

Toxicity Eye irritant. Moderate via ingestion.
TLV 100 ppm (methylene chloride)

Est. Dermal LD 50 >2000 mg/kg
Symptoms of Overexposure Headache, nausea, dizziness. Narcosis at high concentration.

Emergency Treatment Procedures

Ingestion: Induce vomiting. Obtain medical attention.
Inhalation: Remove to fresh air. If symptoms persist, obtain medical attention.
Skin Contact: Flush with water.
Eye Contact: Flush at least 15 minutes with water. Obtain medical attention.

Personal Protection

Eyes: Safety glasses or goggles recommended.
Skin: Rubber or plastic gloves recommended.
Ventilation: Provide adequate local ventilation to maintain vapor concentration below TLV.

ANTI-SEIZE LUBRICANT (AEROSOL)

V. FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash point None Method T.C.C.
Explosive Limits (% by volume in air) Lower dna % Upper dna %
Recommended Extinguishing Agents CO₂, Foam, Dry Chemical
Hazardous Products Formed by Fire or Thermal Decomposition: Toxic chlorides, metal vapors
Unusual Fire or Explosion Hazards: None
Compressed Gasses Name Carbon dioxide
Pressure at Room Temperature 65 psi

VI. REACTIVITY DATA

Stability ☒ Stable ☐ Unstable
Hazardous Polymerization ☐ May Occur ☒ Will Not Occur
Hazardous Decomposition Products (non-thermal)
None

Incompatibility None

VII. SPILL OR LEAK AND DISPOSAL PROCEDURES

Steps to be taken in case of spill or leak: Take up in inert absorbent.

Recommended methods of disposal: Landfill or incinerate in accordance with EPA and local regulations. Do not incinerate pressurized cans.

. STORAGE AND HANDLING PROCEDURES

Storage: Store below 110°F.

Handling: Keep away from eyes. Avoid prolonged breathing of vapor.

IX. SHIPPING REGULATIONS

Type or Class DOT ORM-D

IATA Class II - Compressed Gas

Proper Shipping Name DOT Consumer-type commodity

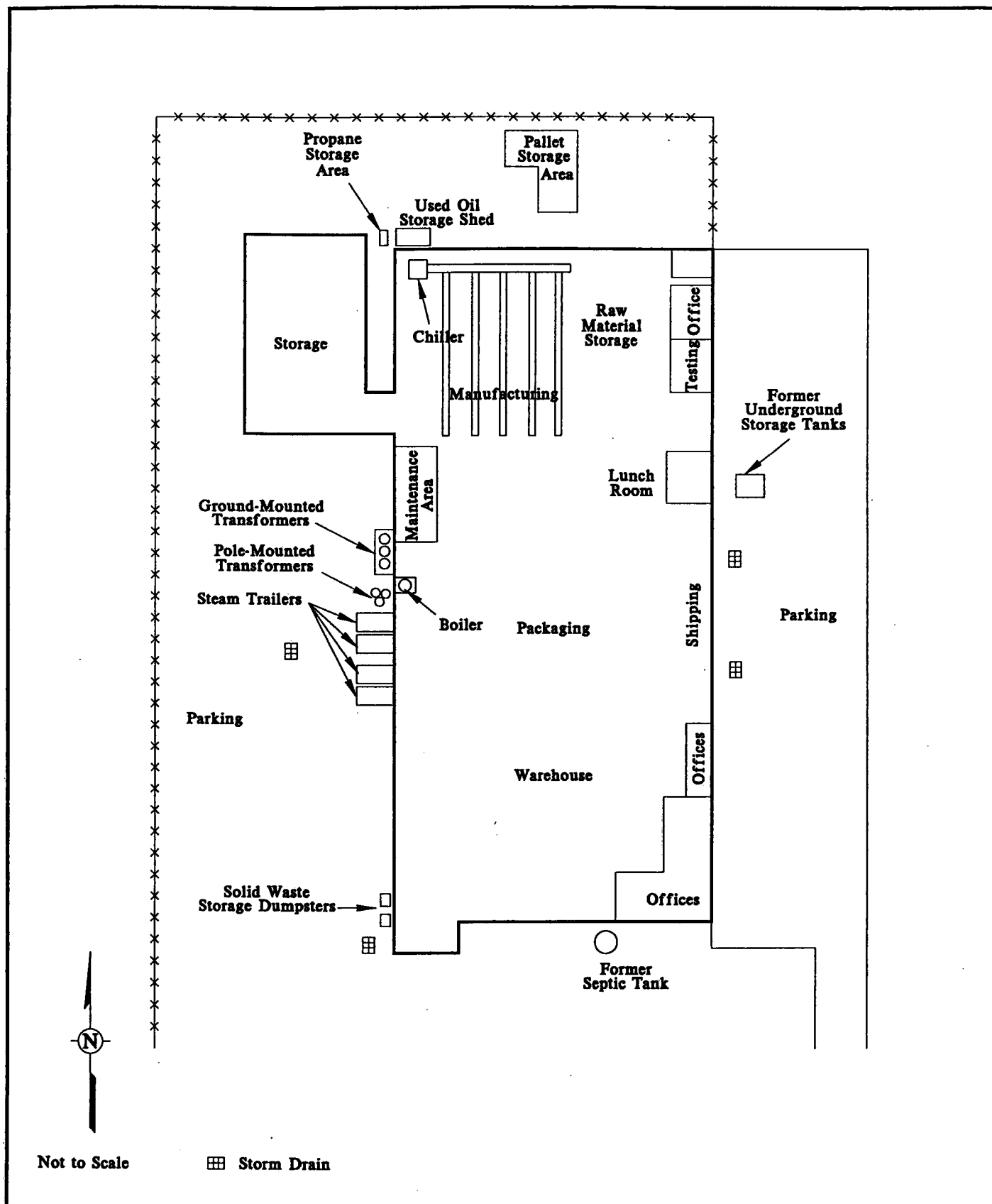
IATA Aerosol, non-flammable, n.o.s., toxic Group III

Prepared By: Martin Hauser

Title: Vice President - Environmental Health and Safety

Date: November 1, 1985

ZURN00055





City of Elkhart
Public Works and Utilities

**1201 S. Nappanee Street
Elkhart, Indiana 46516**

**INDUSTRIAL WASTEWATER DISCHARGE PERMIT
Permit No. 96-01**

In compliance with the provisions of the City of Elkhart Sewer Use and Rate Ordinance No. 4866,

**Zurn PEX, LLC
1900 W. Hively Avenue
Elkhart, Indiana 46517
(574) 294-7541**

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the City of Elkhart sewer system in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, State, and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit. Nothing in this permit shall be construed to relieve the permittee from liabilities and administrative, civil or criminal penalties resulting from noncompliance with this permit or the City of Elkhart Sewer Use and Rate Ordinance No. 4866.

Noncompliance with any term or condition of this permit shall constitute a violation of the City of Elkhart Sewer Use and Rate Ordinance No. 4866.

This permit incorporates the City of Elkhart Sewer Use and Rate Ordinance No. 4866 and the City of Elkhart Enforcement Response Plan. Anything not covered specifically by this permit shall be referred to the City of Elkhart Sewer Use and Rate Ordinance No. 4866 and the City of Elkhart Enforcement Response Plan. No exceptions will be implied and must be expressly stated.

EFFECTIVE DATE: May 20, 2008

EXPIRATION DATE: May 20, 2013

PART I. FACILITY DESCRIPTION

Zurn PEX, LLC is subject to the National Categorical Pretreatment Standards for the Plastic Molding and Forming Point Source Category, as listed in 40 CFR, Part 463. More specifically, it is subject to Subpart A – Contact Cooling and Heating Water Subcategory, as an existing source. Zurn PEX, LLC manufactures plastic potable hot and cold water pipes. The pretreatment standards for existing sources set forth in 40 CFR, Part 463.15 provide for compliance with the General Pretreatment Regulations of 40 CFR, Part 403. In order to assess continuous compliance with the General Pretreatment Regulations, Zurn PEX, LLC will be required to monitor for parameters of concern to the City of Elkhart Public Works and Utilities as defined in the Local Limits section of Elkhart's Sewer Use and Rate Ordinance, No. 4866, Section 4.5.

Zurn PEX, LLC extrudes plastic pipes in different forms. Raw materials include polybutylene or polyethylene resin. The contact cooling water which reaches the sewer system originates from overflows of recirculating water from the cooling of extruded pipes which flows into trenches running along the machines. Additional discharge originates from the process of steam curing new plastic pipe.

Zurn PEX, LLC discharges an average of 1,490 gpd of wastewater is from the following sources:

- 1) 665 gpd of contact cooling water and steam curing
- 2) 825 gpd of sanitary wastewater

PART II. EFFLUENT LIMITATIONS

A. During the period of **May 20, 2008 to May 20, 2013** the permittee is authorized to discharge process wastewater to the City of Elkhart sewer system through the control manhole located southeast of the building, at the pumping station.

B. During the period of **May 20, 2008 to May 20, 2013**, the **discharge at the control manhole** shall not exceed the following effluent limitations. Effluent at this sampling location consists of process wastewater and sanitary wastewater combined.

PART III. SELF MONITORING REQUIREMENTS

A. From the period **May 20, 2008 to May 20, 2013**, the permittee shall monitor at the end of pipe, for the following parameters, at the indicated frequency:

<u>PARAMETER</u>	<u>FREQUENCY</u>	<u>SAMPLE TYPE</u> ⁶
pH	every six months	Grab ^{4,5}
TSS	every six months	one day's composite
cBOD ₅	every six months	one day's composite
Ammonia (NH ₃ -N)	every six months	one day's composite
Total Phosphorus	every six months	one day's composite
FOG	every six months	Grab
Cadmium	every six months	one day's composite
Chromium	every six months	one day's composite
Copper	every six months	one day's composite
Lead	every six months	one day's composite
Nickel	every six months	one day's composite
Zinc	every six months	one day's composite
TTO	every six months	Grab ⁵

B. A Grab sample is defined as an individual sample collected over a period of time not to exceed 15 minutes.

C. For this application, a composite sample is interpreted to be a minimum of four grab samples collected at equal intervals, collecting identical volumes, over the period of the work day. Upon review, the Pretreatment Office may increase the number of grab samples added to the composite to be collected. The sample volume will depend on the number of analyses to be performed by the analytical laboratory. Alternative methods may be submitted for approval and must demonstrate to be representative of discharge.

⁶ Samples are to be taken in accordance with 40 CFR Part 136 and amendments thereto, according to the City of Elkhart Sewer Use and Rate Ordinance No. 4866, Article 5.4, unless specified otherwise in this permit.

- (3) Notification procedures, in accordance with paragraph 4.13.3 of this Section, for immediately notifying the POTW of spills or Slug discharges, including any Discharge that would violate a prohibition under Section 4.2;
- (4) If necessary, procedures to prevent adverse impacts from Slug discharges or spills, including, but not limited to, the following:
 - (i) Inspection and maintenance of storage areas,
 - (ii) Handling and transfer of materials,
 - (iii) Loading and unloading operations,
 - (iv) Control of plant site runoff,
 - (v) Worker training,
 - (vi) Building of containment structures or equipment,
 - (vii) Measures for containing toxic organic pollutants (including solvents), and
 - (viii) Measures and equipment for emergency responses.

Such plans shall be revised and updated whenever plant operational changes affect the validity of the plans, but in any case, not less often than every three (3) years. Failure to comply with this requirement may result in administrative penalties as defined in Section 12.1 of this Ordinance. Any significant plan revisions, including revisions involving construction/installation of new facilities, shall be submitted to the Director prior to implementation of such revisions

Slug Discharge Prevention/Control Plan

- (b) Each SIU shall provide protection from spills or Slug discharges. The Director shall determine if a Slug discharge prevention/control plan is required by an SIU. An SIU that is required to have a Slug discharge prevention/control plan shall not commence discharging to the POTW until a plan has been submitted to the Director. The Director's review of such plan, including any facilities and operating procedures, shall not relieve the SIU from the responsibility to modify such plan as necessary to maintain compliance with applicable Federal, State, and local regulations. In addition, the submission of such plan to the Director shall not relieve the SIU of its responsibility to comply with all other laws and regulations governing the use, storage, and transportation of hazardous substances. Facilities necessary to implement these plans shall be provided and maintained at the SIU's expense.
- (c) Such plans shall be revised and updated whenever plant operational changes affect the validity of the plans, but in any case, not less often than every three (3) years. Failure to comply with this requirement may result in administrative penalties as defined in Section 12.1 of this Ordinance. Any significant plan revisions, including revisions involving construction/installation of new facilities, shall be submitted to the Director prior to implementation of such revisions.

The plan must be submitted to the Pretreatment Office and revised and updated every three years.

E. All forms required are included in the Forms section of this Permit.

F. If TTO reporting is required, it shall be performed according to instructions provided in the Forms section of this Permit. The instructions and required Certification Statement are included.

G. All reports shall include all proper signatures according to the City of Elkhart's Sewer Use and Rate Ordinance No. 4866, Section 5.2.4 which states:

5.2.4 Signatory Requirements and Certification.

- (a) All reports required by this Ordinance and other information requested by the Director shall be

the total minimums set forth below in Section 6.1.3, unless approved by the Board. The Director may require more frequent monitoring based on potential degree of adverse impact on the POTW, variability in types or amounts of Pollutants discharged, concentration or loading of Compatible Pollutants, or to ascertain continued compliance.

- (c) The Board may approve in an SIU's Industrial Wastewater Discharge Permit the use of the monitoring results from one (1) of the City's monitoring events in lieu of one (1) of the required SIU self-monitoring events.

6.1.3 Minimum Self-Monitoring Frequency Permit Requirements.

<u>Industry Flow</u> <u>(Average Gallons per Day)</u>	<u>Monitoring Frequency</u>
0 - 10,000	Once every six months
10,001 - 25,000	Once every three months
25,001 - 50,000	Once every two months
50,001 - 100,000	Once a month
greater than 100,000	Once every two weeks

6.2 Surveillance Charge.

6.2.1 The Director shall have the authority to charge any User a surveillance charge. The surveillance charge may be based on, but not limited to, the cost of sample collection, analysis and reporting as well as site inspection and records evaluation costs.

6.2.2 The Board shall have the authority to review on an annual basis the surveillance charge and to adjust the charges accordingly to achieve actual cost reimbursement.

6.3 Monitoring of Significant Industrial Users.

6.3.1 An SIU shall install, at its own expense, monitoring facilities as required in Section 5.3 of this Ordinance, unless said SIU can demonstrate to the Director that compliance with this requirement would cause undue hardship. In such cases, the Director shall provide for alternate monitoring procedures in the SIU's Industrial Wastewater Discharge Permit. The Director shall have the right of full access, at all times, to said monitoring facility to conduct tests on the quantity and quality of Effluent being discharged by the SIU.

6.3.2 In addition to any equipment provided by the SIU, the Director may install additional metering or monitoring equipment during a surveillance period in or near to the SIU's monitoring facility.

6.3.3 In the event of continuing exceedance of an SIU's Effluent Limitations or frequent fluctuations in an SIU's Wastewater Constituents and Characteristics, the Director may require an SIU to install additional monitoring equipment which may include, but not be limited to, a device for continuously and automatically measuring and recording flow and/or a device for automatically taking discrete and composite samples of Wastewater.

6.3.4 Each SIU shall measure and record the following data in accordance with the schedule established in the SIU's permit and the sampling and analytical requirements in Section 5.4.3 of this Ordinance:

(a) Total daily Wastewater discharge (gallons per day).

(b) Concentration of each Wastewater Constituent or Characteristic specified in the permit.

(c) Total daily discharge of each Wastewater Constituent or Characteristic specified in the permit.

6.3.5 The Director may monitor and analyze the Wastewater of any SIU on a daily basis when just cause exists. If at any time the rate of Wastewater discharge, or concentration or mass of a Wastewater Constituent or Characteristic, exceeds the maximum limits in the permit, the Director shall be notified as required in Section 5.1.4 (i) and (j).

6.3.6 All metering or monitoring equipment installed by the SIU shall be installed, maintained and calibrated in accordance with the manufacturers recommended standards for the specific equipment.

PART VI. NONCOMPLIANCE AND ENFORCEMENT

All noncompliance and enforcement action determinations will be made according to the City of Elkhart Sewer Use and Rate Ordinance No.4866 and the City of Elkhart

- (e) A permittee shall:
 - (1) Report to the Director plans for or information about any activity that has occurred or will occur that would constitute cause for modification or revocation of a permit under this Section 5.1.3;
 - (2) Comply with the existing permit until it is modified or reissued.

PART IX. ANNUAL PUBLICATION

Annual publication of significant noncompliance will be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4866, Section 7.5, which states:

7.5 Publication of Violations.

The Director shall at least annually publish in the newspaper of general circulation having the largest circulation within the City a list of the Users which, at any time during the previous twelve (12) months, were in Significant Noncompliance, as defined in Section 2.1.65.

and the City of Elkhart Enforcement Response Plan.

PART X. SEWER CHARGES, SURCHARGES, SERVICE FEES AND PRETREATMENT

All sewer charges, surcharges, service fees and pretreatment charges are set forth in the City of Elkhart Ordinance No. 4866, Article XI.

PART XI. RIGHT OF ENTRY

In accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4866, Section 5.4, which states:

5.4 Inspection and Sampling.

5.4.1 Inspection

- (a) The Director or Inspector may inspect the facilities of any User to ascertain whether the User is complying with the provisions and requirements of this Ordinance. The Director or Inspector shall perform a minimum of one (1) scheduled and one (1) unscheduled inspection each calendar year at each SIU.
- (b) Upon request by the Director, Users shall allow the Director or its representative or the Approval Authority access to all parts of the premises for the purpose of ensuring compliance with this Ordinance. The Director, Inspector and the Approval Authority shall have the right to enter onto a User's property to set up such devices as are necessary to sample, inspect, monitor or meter operations of the User to determine compliance with this Ordinance. Where a User has security measures in force which would require proper identification and clearance before entry into their premises, the User shall make necessary arrangements so that upon presentation of suitable identification, personnel of the Director or the Approval Authority shall be permitted to enter, without delay, for the purposes of performing their specific responsibilities. Unreasonable delays in allowing the Director, Inspector or Approval Authority access to the User's premises shall be a violation of this Ordinance.

5.4.2 Search Warrants

The Director may obtain a search warrant from a court of competent jurisdiction when:

- (a) The Director is able to demonstrate that a User is violating any provision of this Ordinance and the Director has been refused access to a building, structure, or property, or any part thereof, or

- cause for permit modification under Section 5.1.3.
- (b) The Director, within thirty (30) calendar days after receiving the transfer notification from the permittee, does not notify the current permittee and the transferee of the need to modify, revoke or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

PART XIII. NOTIFICATION OF INDUSTRIAL PRETREATMENT BYPASSES

All notification of industrial bypasses shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4866, Section 4.14.3, which states:

4.14.3 Notification of Bypasses

With any Bypass, the Industrial User shall comply with the following notification requirements.

(a) Anticipated Industrial Pretreatment Bypasses.

If an Industrial User knows in advance of the need for an Industrial Pretreatment Bypass, the Director shall receive written notification from the Industrial User at least 48 hours before the date of such Bypass describing the cause of the Bypass, the Bypass's impact on any effluent limits, and the anticipated date and duration of the Bypass.

(b) Unanticipated Industrial Pretreatment Bypasses.

An Industrial User shall notify the Director of any unanticipated Industrial Pretreatment Bypass. The notification shall include the following:

- (1) Oral notice to the Director immediately after the Industrial User becomes aware of the Bypass.
- (2) A written report within five (5) calendar days of the time the Industrial User becomes aware of such Bypass. This report shall specify the following:
 - (i) A description of the Bypass, the cause thereof, and the Bypass's impact on any limits;
 - (ii) The amount/volume and duration of the Bypass, including exact dates and times;
 - (iii) If the Bypass has not been corrected, the anticipated time it is expected to continue; and
 - (iv) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the Bypass.

PART XIV. NOTIFICATION OF SPILLS, SLUG DISCHARGES AND OPERATION UPSETS

All notification of spills, slug discharges and operation upsets shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4866, Section 4.13.3, which states:

4.13.3 Reports of Spills, Slug Discharges and Operation Upsets.

(a) Oral Notice

The User shall notify the City's Public Works and Utilities Department by telephone within fifteen (15) minutes of becoming aware of any spill, Slug discharge, or operation Upset. The notification shall include location and duration of the discharge, type of Waste, including concentration, pH, volume and corrective actions.

- (4) Failure of the permittee to accurately report the Wastewater Constituents and Characteristics of the permittee's Discharge.
 - (5) Failure of the permittee to report significant changes in operations or Wastewater Constituents and Characteristics.
 - (6) Refusal of reasonable access to the permittee's premises for the purpose of inspection or monitoring.
- (d) In addition to the provisions of paragraphs (b) and (c), a permit may be modified for any of the following causes:
- (1) Material and substantial alterations or additions to the User's operation which were not covered in the effective permit, e.g., production changes, relocation or combination of discharge points, changes in the nature or mix of products produced, provided that such alterations do not constitute total replacement of the process or production equipment causing the Discharge which converts it into a New Source.
 - (2) Within nine (9) months of the promulgation of a National or State Categorical Pretreatment Standard, the Industrial Wastewater Discharge Permit of Users subject to such standards shall be modified to require compliance with such standard within the time frame prescribed by such standard. In addition, the User with an existing Industrial Wastewater Discharge Permit shall submit an updated application to the Director within one hundred eighty (180) days after the promulgation of the applicable Categorical Pretreatment Standard.
- (e) A permittee shall:
- (1) Report to the Director plans for or information about any activity that has occurred or will occur that would constitute cause for modification or revocation of a permit under this Section 5.1.3;
 - (2) Comply with the existing permit until it is modified or reissued.

PART XVII. SEVERABILITY

If any provisions, paragraph, word, section or article of this permit is invalidated by the City of Elkhart Board of Public Works or any court of competent jurisdiction, the remaining provisions, paragraphs, words, sections and chapters shall not be affected and shall continue in full force and effect.

PART XVIII. RETENTION OF RECORDS

a) The permittee shall retain records of monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended at the request of the City of Elkhart at any time.

b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the City of Elkhart shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

This provision is mandated in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4866, Section 5.1.8 which states:

To:
City of Elkhart
Public Works & Utilities
Pretreatment Office
Elkhart, IN 46516
FAX: 293-7658

Re: **Batch Discharge Announcement**

Industry Name:

Permit Number:

Date of Discharge:

Time Discharge will Begin:

Approximate Duration of Discharge:

Specify which tank(s) will be discharged if
there are multiple tanks:

Authorized Representative

Title

Signature of Authorized Representative

Date

Revised 7/27/07

ZURN00065

SELF-MONITORING REPORT
COVER PAGE



Industry Name: _____

Permit Number: _____

Checklist of Enclosures

This report includes the following information:

- ☐ *Industrial User Sampling Event Report*
- ☐ Copy of the analysis report from the respective laboratory, with pertinent required information, including:
 - ☐ Analytical results
 - ☐ Sample type (Grab or Composite)
 - ☐ Sample dates and times
 - ☐ Method of analysis
 - ☐ Analyst's initials
 - ☐ Date and time of analysis
 - ☐ Preservation
 - ☐ Container type (glass or plastic)
- ☐ *Report Certification Statement*
- ☐ *Industrial User Process Report*

Compliance Evaluation

Indicate the compliance status of your company based on the information contained in this report:

This company is: ☐ **in compliance**

☐ **out of compliance**

If the company is "out of compliance", indicate below if the POTW or Pretreatment Office was notified:

☐ **Yes** Date: _____ Time: _____

Industrial Rep's Name: _____

Utility Rep's Name: _____

☐ **No**

INDUSTRIAL USER PROCESS REPORT ✓

Industry Name: _____

Date Report Submitted: _____

Reporting Period: _____

	Process (batch)	Total
Average Daily Flow (gpd)	_____	_____
Maximum Daily Flow (gpd)	_____	_____
Estimated 30 min. peak flow	_____	_____

Maximum pH (S.U.)*	_____	_____
--------------------	-------	-------

Minimum pH (S.U.)*	_____	_____
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* Indicate if these are ☐ **End of Pipe** OR ☐ **End of Process** values.

Name of Authorized Representative

Title

Signature of Authorized Representative

Date

REPORT CERTIFICATION STATEMENT



All reports submitted to the City must include the following certification statement, signed by an Authorized Representative.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name of Authorized Representative

Title

Signature of Authorized Representative

Date

TTO CERTIFICATION STATEMENT



In lieu of TTO monitoring, this statement may be submitted as part of the reporting requirement for TTO.

"Based on my inquiry of the persons directly responsible for managing compliance with the pretreatment standard for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the control authority."

Name of Authorized Representative

Title

Signature of Authorized Representative

Date

TTO MONITORING REQUIREMENTS



- A. The Total Toxic Organics (TTO) limitation is defined as the summation of all quantifiable values greater than 0.01 mg/L for the toxic organic compounds that appear on the list included in your permit. The sum of all values for each total toxic organic shall not exceed the TTO limitations.
- B. The permittee needs to analyze only for those toxic organics that would reasonably be expected to be present in the discharge.
- C. In lieu of monitoring for TTO, the control authority may allow the permittee to make the following TTO Certification Statement as a comment to the periodic reports required per this permit.

“Based on my inquiry of the persons directly responsible for managing compliance with the pretreatment standard for Total Toxic Organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the Toxic Organic Management Plan submitted to the control authority.”

- D. In requesting that no monitoring be required, the permittee shall submit a Toxic Organic Management Plan (TOMP) that specifies to the control authority's satisfaction the following conditions:
 - 1. the toxic organic compounds used;
 - 2. the method of disposal used instead of dumping, such as reclamation, contract hauling, incineration, etc.; and
 - 3. the procedures for assuring that toxic organics do not routinely spill or leak into the wastewater

INDUSTRIAL USER SAMPLING EVENT REPORT ✓

Industry Name: _____ Permit #: _____

Sampler Name(s): _____

Sample Type:

☐ **Grab:** Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐

Individual sample collected over a period of time not exceeding fifteen minutes.

☐ **Composite:** Start: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐
End: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐

Composite Method: ☐ Manual
☐ Automatic Sampler

☐ **Flow Proportional:** Sample collected every _____ gallons

Minimum of four grab samples collected over a time greater than fifteen minutes and combined in proportion to the wastewater flow

☐ **Time Proportional:** Time Interval _____ Number Combined _____

Minimum of four grab samples of equal volume collected over a time greater than fifteen minutes that is representative of the discharge

Location of Event: ☐ End of Process or Pretreatment

☐ End of Pipe

Samples in Proper Containers? ☐ Yes ☐ No

Samples Properly Preserved?* ☐ Yes ☐ No

**specific information shall be included with the chain of custody*

Chain of Custody:

Date	Relinquished By	Received By	Time

Please include the original laboratory report(s).

Revised 7/27/07

ZURN00071

**CITY OF ELKHART
PUBLIC WORKS & UTILITIES ADMINISTRATION
1201 S. Nappanee Street
Elkhart, Indiana 46516**

**INDUSTRIAL WASTEWATER DISCHARGE PERMIT
Permit No. 96-01**

In compliance with the provisions the City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended,

**U.S. Brass
1900 W. Hively Avenue
Elkhart, Indiana 46517
(574) 294-7541**

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the City of Elkhart sewer system in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, State, and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit. Nothing in this permit shall be construed to relieve the permittee from liabilities and administrative, civil or criminal penalties resulting from noncompliance with this permit or the City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended and Ordinance 4653.

Noncompliance with any term or condition of this permit shall constitute a violation of the City of Elkhart Sewer Use and Rate Ordinance No. 4187.

This permit incorporates the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the City of Elkhart Enforcement Response Plan. Anything not covered specifically by this permit shall be referred to the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the City of Elkhart Enforcement Response Plan, which are included in the Permit. No exceptions will be implied and must be expressly stated.

EFFECTIVE DATE: May 20, 2003

EXPIRATION DATE: May 20, 2008

If permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal permit in accordance with the requirements of the City of Elkhart Sewer Use and Rate Ordinance Article III.3.2.2 and 3.2.6., a **minimum of 180 days prior to the expiration date.**

I certify that I have read and am familiar with the conditions and terms contained in this Industrial Wastewater Discharge Permit.

_____ Name of Corporate Officer	_____ Title
_____ Signature of Corporate Officer	_____ Date
_____ Name of Authorized Representative	_____ Title
_____ Signature of Authorized Representative	_____ Date
<u>Lynn Newvine</u> _____ Name of Utility Representative	<u>Laboratory and Pretreatment Director</u> _____ Title
_____ Signature of Utility Representative	_____ Date

This permit is approved by the City of Elkhart Board of Public Works.

_____ N. Dean Hupp	_____ Date
_____ Michael Machlan	_____ Date
_____ James Beattie	_____ Date
_____ Alfred L. Bias	_____ Date
_____ Michael Terlep, Sr.	_____ Date

PART I. FACILITY DESCRIPTION

U.S. Brass is subject to the National Categorical Pretreatment Standards for the Plastic Molding and Forming Point Source Category, as listed in 40 CFR, Part 463. More specifically, it is subject to Subpart A – Contact Cooling and Heating Water Subcategory, as an existing source. U.S. Brass manufactures plastic potable hot and cold water pipes. The pretreatment standards for existing sources set forth in 40 CFR, Part 463.15 provide for compliance with the General Pretreatment Regulations of 40 CFR, Part 403 only and contains no specific limits. In order to assess continuous compliance with the General Pretreatment Regulations, U.S. Brass will be required to monitor for parameters of concern to the City of Elkhart Public Works and Utilities.

U.S. Brass extrudes plastic pipes in different forms. Raw materials include polybutylene or polyethylene resin. The contact cooling water which reaches the sewer system originates from overflows of recirculating water from the cooling of extruded pipes which flows into trenches running along the machines.

U.S. Brass discharges an average of 1,700 gpd of wastewater is from the following sources:

- 1) 1,250 gpd of non-contact cooling water
- 2) 450 gpd of sanitary wastewater

The process wastewater is pretreated by pH adjustment. Non-contact cooling water which was previously discharged to the sewer after pretreatment is currently reused in the process, therefore becoming part of the process wastewater flow.

PART II. EFFLUENT LIMITATIONS

A. During the period of **May 20, 2003** to **May 20, 2008** the permittee is authorized to discharge process wastewater to the City of Elkhart sewer system through the control manhole located southeast of the building, at the pumping station.

B. During the period of **May 20, 2003** to **May 20, 2008**, the **discharge at the control manhole** shall not exceed the following effluent limitations. Effluent at this sampling location consists of process wastewater and sanitary wastewater combined.

**CONTROL MANHOLE
END OF PIPE EFFLUENT LIMITATIONS
COMBINED WASTESTREAM**

<u>PARAMETER</u> ¹	<u>DAILY MAXIMUM</u> ² mg/L	<u>4-DAY AVERAGE</u> ³ mg/L	<u>Ordinance Limits</u> ⁴ mg/L
pH	(max) 10.0	(min) 5.0 (S.U.)	
TSS			250 (surcharged)
cBOD ₅			250 (surcharged)
Ammonia (NH ₃ -N)			25 (surcharged)
Total Phosphorus			11 (surcharged)
Cadmium	1.14	0.66	1.2
Chromium (T)	6.63	3.79	7.0 (T)
Copper	4.26	2.56	4.5
Lead	0.57	0.38	0.6
Nickel	3.89	2.46	4.1
Zinc	3.98	2.46	4.2
Cyanide (T)	1.66	0.95	1.75 (T)
Total Metals	9.95	6.44	--
TTO	2.02	--	--

C. The end of pipe or combined wastestream effluent limitations, are the more stringent of

- 1) the alternate categorical limits;
- 2) local limits according to the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Article II.2.4., as amended.

D. The Combined Wastestream Formula has been applied in accordance with 40 CFR Part 403.6(e). The calculations are as follows:

¹ All metals shall be analyzed as total metals.

² Daily maximum discharge is defined as the arithmetic mean of the pollutant concentration derived from all measurements taken that day.

³ Four day average is defined as the average value from four consecutive *sampling* days.

⁴ City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended, and Section 9.12.

COMBINED WASTESTREAM FORMULA (_{cwf})

$$\frac{\text{CWF CONCENTRATION} - (\text{PSES}_{\text{conc}} \times \text{FLOW}_{\text{process}})}{\text{FLOW}_{\text{total}}}$$

PSES CONCENTRATION is the National Categorical Standard (concentration expressed as mg/L):

FLOW_{process} is the regulated process average daily flow (gpd);

FLOW_{total} is the total average daily flow (gpd) through the control manhole.

The resultant limits at "end of pipe" are as follows:

	<u>DAILY MAXIMUM</u>	<u>4-DAY AVERAGE</u>	
		<u>Categorical</u>	<u>CWF</u>
(Cadmium _{cwf}) =	$\frac{(1.2 \times 16,350)}{(17,250)} = 1.14$.7	0.66
(Chromium _{cwf}) =	$\frac{(7.0 \times 16,350)}{(17,250)} = 6.63$	4.0	3.79
(Copper _{cwf}) =	$\frac{(4.5 \times 16,350)}{(17,250)} = 4.26$	2.7	2.56
(Lead _{cwf}) =	$\frac{(0.6 \times 16,350)}{(17,250)} = 0.57$	0.4	0.38
(Nickel _{cwf}) =	$\frac{(4.1 \times 16,350)}{(17,250)} = 3.89$	2.6	2.46
(Zinc _{cwf}) =	$\frac{(4.2 \times 16,350)}{(17,250)} = 3.98$	2.6	2.46
(TTO _{cwf}) =	$\frac{(2.13 \times 16,350)}{(17,250)} = 2.02$		
(Cyanide (T) _{cwf}) =	$\frac{(1.9 \times 16,350)}{(17,250)} = 1.66$	1.0	0.95
(Total Metals _{cwf}) =	$\frac{(10.5 \times 16,350)}{(17,250)} = 9.95$	6.8	6.44

E. During the period of **June 18, 2002 to June 18, 2007**, the **discharge at the end of process, located inside permittee's plant, at the end of pretreatment**, shall not exceed the following effluent limitations. This sampling location is of process waste-

water only and is not combined with sanitary wastewater.

SELF MONITORING LOCATION

END OF PROCESS EFFLUENT LIMITATIONS NATIONAL CATEGORICAL PRETREATMENT STANDARDS

<u>PARAMETER</u>	<u>DAILY MAXIMUM</u> mg/L	<u>4-DAY AVERAGE</u> mg/L
pH	(max) 10.0 (min) 5.0	(std.Units)
Cadmium	1.2	0.7
Chromium (T)	7.0	4.0
Copper	4.5	2.7
Lead	0.6	0.4
Nickel	4.1	2.6
Zinc	4.2	2.6
Cyanide (T) ⁵	1.9	1.0
Total Metals ⁶	10.5	6.8
TTO	2.13	--

- F. The end of process effluent limitations are set forth in the National Categorical Pretreatment Standards for Electroplaters, 40 CFR 413.64(c) AND (g) and apply at the end of the regulated process prior to dilution, without utilizing the Combined Wastestream Formula.

PART III. SELF MONITORING REQUIREMENTS

- A. From the period beginning on the effective date of the permit until June 4, 2001,

⁵ The Ordinance limit will apply since it is the most stringent.

⁶ Total Metals is the sum of the concentration or mass of Copper (Cu), Nickel (Ni), Chromium (Cr) and Zinc (Zn).

the permittee shall monitor at the end of process, for the following parameters, at the indicated frequency:

<u>PARAMETER</u>	<u>FREQUENCY</u>	<u>SAMPLE TYPE⁷</u>
pH	every 2 months	Grab ⁸
Zinc	every 2 months	one day's composite
Copper	every 2 months	one day's composite
Cyanide (T)	every 2 months	Grab
Nickel	every 2 months	one day's composite
Total Metals	every 2 months	one day's composite
Chromium	every 6 months	one day's composite
TTO ⁹	every 6 months	Grab
Cadmium	every 6 months	one day's composite
Lead	every 6 months	one day's composite

- B. A Grab sample is defined as an individual sample collected over a period of time not to exceed 15 minutes.
- C. For this application, a composite sample is interpreted to be a minimum of four grab samples collected at equal intervals, collecting identical volumes, over the period of the work day. Upon review, the Pretreatment Office may increase the number of grab samples added to the composite to be collected. The sample volume will depend on the number of analyses to be performed by the analytical laboratory. Alternative methods may be submitted for approval and must demonstrate to be representative of discharge.

PART IV. REPORTING

- A. Self-monitoring sampling results from sampling conducted in a calendar month shall be summarized and reported to the Pretreatment Office in the following month. **The reports must be submitted to the Pretreatment Office by the 25th day of each following month.** The reports must include:
- 1) The Cover Page to Self Monitoring Report
 - 2) Report Certification Statement signed by the authorized representative
 - 3) Industrial User Sampling Event Report

⁷ Samples are to be taken in accordance with 40 CFR, Part 136 and amendments thereto, according to the City of Elkhart Sewer Use and Rate Ordinance, Section 3.5.1, unless specified otherwise in this permit.

⁸ In a grab sample, pH must be taken within 30 minutes following sample collection. If a continuous measurement is done, calibration data must be submitted to the Pretreatment office with monitoring reports. No pH taken on a composite will be accepted.

⁹ The TTO requirement may be fulfilled through a certification and implementation of a Toxic Organic Management Plan.

- 4) An original of the laboratory report and chain of custody
- B. Semi-annual Pretreatment Reports shall be submitted to the POTW, in the Industrial User Process Report, on June 25th and December 25th, and shall include the information listed below:
- 1) measured or estimated average and maximum daily flows for the reporting period in gallons per day [40 CFR 403.12(e)]
 - 2) estimated 30 minute peak flow (highest flow for a 30 minute period)
 - 3) maximum pH
 - 4) minimum pH
- C. Permittee shall keep all wastewater information readily available for City inspection. It shall include the following information:
- 1) process wastewater discharges, including flows in gallons;
 - 2) pretreatment system maintenance activities, if applicable;
 - 3) recalibration data for all flow measuring and other monitoring equipment, if applicable;
 - 4) copies of laboratory analyses and chain of custody information;
 - 5) copies of all documents forwarded to the City in the self-monitoring reports.
- Copies of such information or portions thereof shall be furnished to the City upon request.
- D. The Slug/Spill Prevention Plan is to be prepared in accordance with the City of Elkhart Sewer Use and Rate Ordinance No.4187, Section 2.11. The plan must be approved by the Pretreatment Office and revised and updated every three years.
- E. All forms required are included in the Forms section of this Permit.
- F. If TTO reporting is required, it shall be performed according to instructions provided in the Forms section of this Permit. The instructions and required Certification Statement are included.
- G. All reports shall include all proper signatures according to the City of Sewer Use and Rate Ordinance No. 4187, Section 3.3.4, as amended.
- H. Notification and resampling shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.3.1, as amended.

PART V. POTW MONITORING AND INSPECTIONS

All POTW monitoring and inspections will be performed according to the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Article VIII.

PART VI. NONCOMPLIANCE AND ENFORCEMENT

All noncompliance and enforcement action determinations will be made according to the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the City of Elkhart Enforcement Response Plan.

PART VII. STANDARD CONDITIONS AND PROHIBITIONS

All conditions and prohibitions contained in the City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended, shall be incorporated in this permit by reference, and any violations of any such conditions shall constitute violation of this permit.

PART VIII. REOPENER CLAUSE

This permit may be reopened and modified in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.2.3, as amended

PART IX. ANNUAL PUBLICATION

Annual publication of significant noncompliance will be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 4.6, as amended, and the City of Elkhart Enforcement Response Plan.

PART X. SEWER CHARGES, SURCHARGES, SERVICE FEES AND PRETREATMENT

All sewer charges, surcharges, service fees and pretreatment charges are set forth in the City of Elkhart Ordinance No. 4653.

PART XI. RIGHT OF ENTRY

In accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.5, as amended, City personnel shall not be restricted in any way from inspecting and sampling permittee's facility and/or discharges.

Monitoring facilities shall be provided for and maintained in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.4, as

amended.

PART XII. PERMIT TRANSFER

All permit transfers shall be performed in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.27, as amended.

PART XIII. NOTIFICATION OF INDUSTRIAL PRETREATMENT BYPASSES

All notification of industrial bypasses shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.3.5, as amended.

PART XIV. NOTIFICATION OF SPILLS, SLUG DISCHARGES AND OPERATION UPSETS

All notification of spills, slug discharges and operation upsets shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 2.16.5, as amended.

PART XV. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or correct any adverse impact to the public treatment plant and/or the environment resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 2.15, as amended.

PART XVI. NOTICE OF PERMIT REVOCATION

This permit may be revoked pursuant to permittee noncompliance in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 4.2, as amended.

PART XVII. SEVERABILITY

If any provisions, paragraph, word, section or article of this permit is invalidated by the City of Elkhart Board of Public Works or any court of competent jurisdiction, the remaining provisions, paragraphs, words, sections and chapters shall not be affected and shall continue in full force and effect.

PART XVIII. RETENTION OF RECORDS

- a) The permittee shall retain records of monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended at the request of the City of Elkhart at any time.
- b) All records that pertain to matters that are the subject of special orders or any other enforcement or litigation activities brought by the City of Elkhart shall be retained and preserved by the permittee until all enforcement activities have concluded and all periods of limitation with respect to any and all appeals have expired.

This provision is mandated in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.2.8.

PART XIX. OPERATOR CERTIFICATION

The permittee shall comply with all operator certification requirements as mandated by state law.

PART XX. EXCEPTIONS

No exceptions shall be implied from any part of this permit. Any and all exceptions must be expressly stated upon approval by the City. All sections of the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the Enforcement Response Plan shall apply to all permit holders.



Phone
Fax
Mailing

**PUBLIC WORKS & UTILITIES
ADMINISTRATION**

(219) 293-2572
(219) 293-7658
1201 S. Nappanee St.
Elkhart, IN 46516

**CUSTOMER
BILLING**

(219) 264-4273

921 N. Main St.
Elkhart, IN 46514

**BOARD OF
PUBLIC WORKS**

(219) 294-5471
(219) 293-7964
229 S. Second St.
Elkhart, IN 46516

CITY OF ELKHART, INDIANA

July 16, 1996

JAMES P. PERRON, Mayor

Mr. Richard Jaeckel, Operations Mgr.
U. S. Brass
1900 W. Hively Avenue
PO Box 1746
Elkhart, IN 46515

Dear Mr. Jaeckel:

Permit # 96-01

The City of Elkhart and the Pretreatment Office would like to thank you for your cooperation in the renewal process of your Wastewater Discharge Permit.

Enclosed is your renewed Wastewater Discharge Permit # 96-01. It was approved by the City of Elkhart Board of Public Works July 16, 1996 and will be in effect until July 16, 2001.

This Permit Binder includes all currently effective compliance and regulatory requirements for discharge of wastewater from your facility to the City of Elkhart sewer system.

Finally, in order to take our commitment to environmental stewardship further, we have enclosed with this letter a voluntary Pledge. This Pledge constitutes a voluntary commitment to environmental excellence and is not part of the compliance requirements of your permit. Should your company choose to join us in this pledge, the City of Elkhart and a representative of your company will sign it and a copy will be placed in Section 1 of your Permit Binder.

Again, thank you for your cooperation. We hope to continue the positive relationship with your company in this new permit period. Should you have any questions, please contact us at (219) 293-2572.

Sincerely,

Claudio H. Ternieden,
Pretreatment Director

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COMMITMENT TO EXCELLENCE

ZURN00083

**CITY OF ELKHART
PUBLIC WORKS & UTILITIES ADMINISTRATION
1201 S. Nappanee Street
Elkhart, Indiana 46516**

**INDUSTRIAL WASTEWATER DISCHARGE PERMIT
Permit No. 96-01**

In compliance with the provisions the City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended,

**U.S. Brass
1900 W. Hively Avenue
P.O.Box 1746
Elkhart, Indiana 46517
(219) 294-7541**

is hereby authorized to discharge industrial wastewater from the above identified facility and through the outfalls identified herein into the City of Elkhart sewer system in accordance with the conditions set forth in this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under local, State, and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit. Nothing in this permit shall be construed to relieve the permittee from liabilities and administrative, civil or criminal penalties resulting from noncompliance with this permit or the City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended.

Noncompliance with any term or condition of this permit shall constitute a violation of the City of Elkhart Sewer Use and Rate Ordinance No. 4187.

This permit incorporates the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the City of Elkhart Enforcement Response Plan. Anything not covered specifically by this permit shall be referred to the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the City of Elkhart Enforcement Response Plan, which are included in the Permit Binder. No exceptions will be implied and must be expressly stated.

EFFECTIVE DATE: July 16, 1996

EXPIRATION DATE: July 16, 2001

ZURN00084

Permit No. 96-01
Page No. 2

If permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for a renewal permit in accordance with the requirements of the City of Elkhart Sewer Use and Rate Ordinance Article III.3.2.2 and 3.2.6., a minimum of 180 days prior to the expiration date.

I certify that I have read and am familiar with the conditions and terms contained in this Industrial Wastewater Discharge Permit.

James Brown
Name of Corporate Officer

James Brown
Signature of Corporate Officer

RICHARD JAECKEL
Name of Authorized Representative

Richard Jaeckel
Signature of Authorized Representative

Claudio H. Ternieden
Name of POTW Representative

Claudio H. Ternieden
Signature of POTW Representative

PLANT MGR
Title

7/11/96
Date

OPERATIONS MGR
Title

7/12/96
Date

Pretreatment Director
Title

7/12/96
Date

This permit is approved by the City of Elkhart Board of Public Works:

Gary A. Gilot
Gary A. Gilot

7-16-96
Date

Maribeth Hicks
Maribeth Hicks

7-16-96
Date

Michelle Fioritto
Michelle Fioritto

7-16-96
Date

Richard Moore
Richard Moore

7-16-96
Date

Mark Brinson
Mark Brinson

7/16/96
Date

ZURN00085

PART I. FACILITY DESCRIPTION

U.S. Brass is subject to the National Categorical Pretreatment Standards for the Plastic Molding and Forming Point Source Category, as listed in 40 CFR Part 463. More specifically, it is subject to Subpart A - Contact Cooling and Heating Water Subcategory as an existing source. U.S. Brass manufactures plastic potable hot and cold water pipes. The pretreatment standards for existing sources set forth in 40 CFR Part 463.15 provide for compliance with the General Pretreatment Regulations of 40 CFR Part 403 only and contains no specific limits. In order to assess continuous compliance with the General Pretreatment Regulations, U.S. Brass will be required to monitor for parameters of concern to the City of Elkhart Wastewater Treatment Plant.

U.S. Brass extrudes plastic pipes in different forms. Its raw materials include polybutylene or polyethyene resin. The contact cooling water which reaches the sewer system originates from overflows of recirculating water from the cooling of extruded pipes which flows into trenches set along the machines.

U.S. Brass discharges an average of 750 gpd (gallons per day) of wastewater in a continuous basis, 24 hours a day. However, the contact cooling water is discharged over the weekend. The discharges are from the following sources:

- 1) 200 gpd of process wastewater (contact cooling water)
- 2) 465 gpd of sanitary wastewater
- 3) 35 gpd of non-contact cooling water
- 4) 50 gpd of boiler/air conditioner

PART II. EFFLUENT LIMITATIONS

- A. During the period of **July 16, 1996 to July 16, 2001** the permittee is authorized to discharge process wastewater to the City of Elkhart sewer system through the control manhole located southeast of the building, at the pumping station.
- B. During the period of **July 16, 1996 to July 16, 2001**, the **discharge at the control manhole** shall not exceed the following limits. Effluent at this sampling location consists of process and sanitary wastewater.

**CONTROL MANHOLE
END OF PIPE EFFLUENT LIMITATIONS
COMBINED WASTESTREAM**

<u>PARAMETER</u>	<u>Daily Maximum¹</u> mg/L
pH	(max) 10.0 (min) 5.0 (std.Units)
TSS	250 (surcharged)
cBOD5	250 (surcharged)
Oil & Grease	7.7

C. The end of pipe or combined wastestream effluent limitations, are the more stringent of

- 1) the alternate categorical limits;
- 2) local limits according to the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Article II.2.4., as amended.

D. The Combined Wastestream Formula has been applied in accordance with 40 CFR Part 403.6(e). The calculations are as follows:

COMBINED WASTESTREAM FORMULA (_{cwf})

$$\text{CWF CONCENTRATION} = \frac{(\text{PSES}_{\text{conc}} \times \text{FLOW}_{\text{process}})}{\text{FLOW}_{\text{total}}}$$

PSES CONCENTRATION is the National Categorical Standard (concentration expressed as mg/l):

FLOW_{process} is the regulated process average daily flow (gpd);

FLOW_{total} is the total average daily flow (gpd) through the

¹ These limits are set forth in the City of Elkhart Sewer Use and Rate Ordinance, Section 2 and Section 9, and in 40 CFR 463.12 for Oil & Grease, after application of the Combined Wastestream Formula set forth in 40 CFR 403.6(e) in order to account for the dilution rate.

control manhole.

The resultant limits at "end of pipe" are as follows:

DAILY MAXIMUM

$$(\text{Oil \& Grease}_{\text{cwf}}) = \frac{(29 \times 200)}{(750)} = 7.7$$

- E. During the period of July 16, 1996 to July 16, 2001, the **discharge at the end of process**, located north of the building, at the diverter box shall not exceed the following limits. This location discharges process wastewater only.

**SELF MONITORING LOCATION
END OF PROCES EFFLUENT LIMITATIONS**

<u>PARAMETER</u>	<u>DAILY MAXIMUM</u> mg/L
pH	(Max) 10.0 (min) 5.0 (std.Units)
TSS	250 (surcharged)
CBOD ₅	250 (surcharged)
Oil & Grease	29

- F. The end of process effluent limitations are set forth in the City of Elkhart Sewer Use and Rate Ordinance, Section 2 and Section 9 and in 40 CFR 463.12 for Oil & Grease. These limits apply at the end of the regulated process prior to dilution, without utilizing the Combined Wastestream Formula.

PART III. SELF MONITORING REQUIREMENTS

- A. From the period beginning on the effective date of the permit until July 16, 2001, **the permittee shall monitor at the end of process**, for the following parameters, at the indicated frequency:

ATTN JOE

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Page No. 6

1. Baseline Monitoring Months: July-December 1996
Monitoring at the following frequency:

<u>PARAMETER</u>	<u>FREQUENCY</u>	<u>SAMPLE TYPE</u> ²
pH	once each month	Grab ³
CBOD5	once each month	24-hr composite
TSS	once each month	24-hr composite
Oil & Grease	once each month	Grab ⁴

2. Continued Compliance Monitoring: January-December 1997
Monitoring at the following frequency:

<u>PARAMETER</u>	<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
pH	each 3 months	Grab
CBOD5	each 3 months	24-hr composite
TSS	each 3 months	24-hr composite
Oil & Grease	each 3 months	Grab

3. Regular Compliance Monitoring: January 1998-July 16, 2001
Monitoring at the following frequency:

<u>PARAMETER</u>	<u>FREQUENCY</u>	<u>SAMPLE TYPE</u>
pH	each 6 months	Grab
CBOD5	each 6 months	24-hr composite
TSS	each 6 months	24-hr composite
Oil & Grease	each 6 months	Grab

² Samples are to be taken in accordance with 40 CFR Part 136 and amendments thereto, according to the City of Elkhart Sewer Use and Rate Ordinance, Section 3.5.1, unless specified otherwise in this permit.

³ In a grab sample, pH must be taken within two hours following collection of sample. If a continuous measurement is done, calibration data must be submitted to the Pretreatment Office with monitoring report. No pH taken from composite samples will be accepted.

⁴ Grab samples for Oil & Grease are to be taken in a glass container according to 40 CFR Part 136.3, Table II, page 644 (see 40 CFR Part 136 in the Permit Binder, Section 3).

- B. A Grab sample is defined as an individual sample collected over a period of time not to exceed 15 minutes.
- C. For this application, a composite sample is interpreted to be a minimum of four grab samples collected at equal intervals, collecting identical volumes, over the period of the work day. Upon review, the Pretreatment Office may increase the number of grab samples added to the composite to be collected. The sample volume will depend on the number of analyses to be performed by the analytical laboratory. Alternative methods may be submitted for approval and must demonstrate to be representative of discharge.

PART IV. REPORTING

- A. Self-monitoring sampling results from sampling conducted in a calendar month shall be summarized and reported to the Pretreatment Office in the following month. **The reports must be submitted to the Pretreatment Office by the 25th day of each following month.** The first report is due on **August 25th, 1996.** The reports must include:
 - 1) The Cover Page to Self Monitoring Report
 - 2) Report Certification Statement signed by the authorized representative
 - 3) Industrial User Sampling Event Report
 - 4) An original of the laboratory report and chain of custody
- B. Semi-annual Pretreatment Reports shall be submitted to the POTW, in the Industrial User Process Report, on June 25th and December 25th, and shall include the information listed below:
 - 1) measured or estimated average and maximum daily flows for the reporting period in gallons per day[40 CFR 403.12(e)]
 - 2) estimated 30 minute peak flow (highest flow for a 30 minute period)
 - 3) maximum pH
 - 4) minimum pH
- C. Permittee shall keep all wastewater information readily available for City inspection. It shall include the

following information:

- 1) process wastewater discharges, including flows in gallons;
- 2) pretreatment system maintenance activities, if applicable;
- 3) recalibration data for all flow measuring and other monitoring equipment, if applicable;
- 4) copies of laboratory analyses and chain of custody information;
- 5) copies of all documents forwarded to the City in the self-monitoring reports.

Copies of such information or portions thereof shall be furnished to the City upon request.

- D. The Slug/Spill Prevention Plan included in this Permit Binder, Section 5, is to be prepared in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 2.11. The plan must be approved by the Pretreatment Office and revised and updated every three years.
- E. All forms required are included in Section 3 of this Permit Binder.
- F. If TTO reporting is required, it shall be performed according to instructions on Section 4 of this Permit Binder. The instructions and required Certification Statement are included.
- G. All reports shall include all proper signatures according to the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.3.4, as amended.
- H. Notification and resampling shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.3.1, as amended.

PART V. POTW MONITORING AND INSPECTIONS

All POTW monitoring and inspections will be performed according to the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Article VIII.

PART VI. NONCOMPLIANCE AND ENFORCEMENT

All noncompliance and enforcement action determinations will be made according to the City of Elkhart Sewer Use and Rate

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Ordinance No. 4187 and the City of Elkhart Enforcement Response Plan.

PART VII. STANDARD CONDITIONS AND PROHIBITIONS

All conditions and prohibitions contained in the City of Elkhart Sewer Use and Rate Ordinance No. 4187, as amended, shall be incorporated in this permit by reference, and any and/or all violations of any such conditions shall constitute violation of this permit.

PART VIII. HAZARDOUS WASTE

All hazardous waste notification must comply with the requirements of the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 2.16.1, as amended.

PART IX. REOPENER CLAUSE

This permit may be reopened and modified in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.2.3, as amended.

PART X. ANNUAL PUBLICATION

Annual publication of significant noncompliance will be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 4.6, as amended, and the City of Elkhart Enforcement Response Plan.

PART XI. SEWER CHARGES, SURCHARGES, SERVICE FEES, AND PRETREATMENT CHARGES

All sewer charges, surcharges, service fees and pretreatment charges are set forth in the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Article IX, as amended.

PART XII. RIGHT OF ENTRY

In accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.5, as amended, City personnel shall

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Page No. 10

not be restricted in any way from inspecting and sampling permittee's facility and/or discharges.

PART XIII. PERMIT TRANSFER

All permit transfers shall be performed in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.27, as amended.

PART XIV. NOTIFICATION OF INDUSTRIAL PRETREATMENT BYPASSES

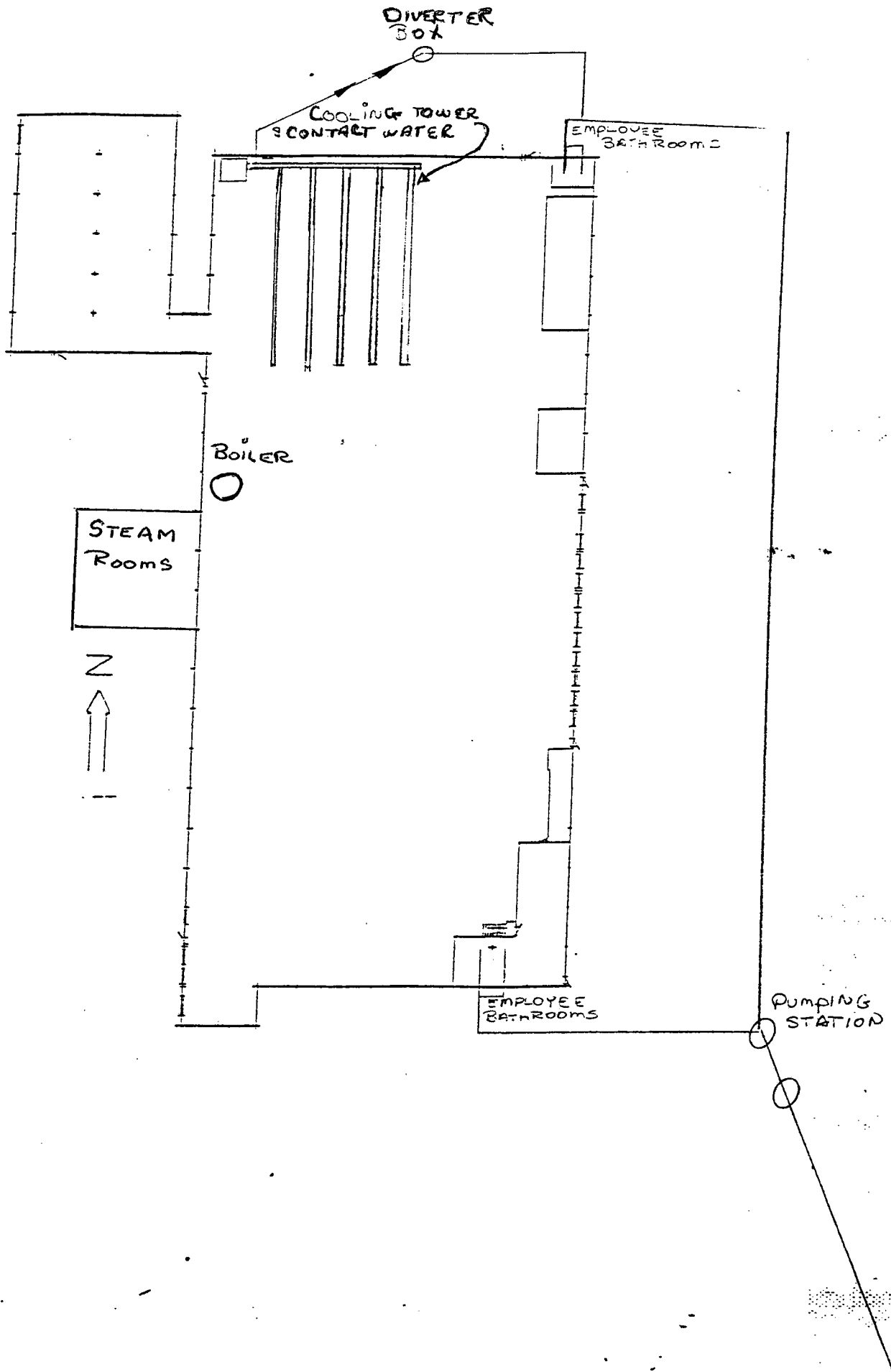
All notification of industrial bypasses shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 3.3.5, as amended.

PART XV. NOTIFICATION OF SPILLS, SLUG DISCHARGES AND OPERATION UPSETS

All notification of spills, slug discharges and operation upsets shall be conducted in accordance with the City of Elkhart Sewer Use and Rate Ordinance No. 4187, Section 2.16.5, as amended.

PART XVI. EXCEPTIONS

No exceptions shall be implied from any part of this permit. Any and all exceptions must be expressly stated upon approval by the City. All sections of the City of Elkhart Sewer Use and Rate Ordinance No. 4187 and the Enforcement Response Plan shall apply to all permit holders.



U.S. BRASS
1900 W. ELY



February 25, 2008

Lynn Newvine
Laboratory and Pretreatment Director
City of Elkhart, Public Works and Utilities
1201 S. Nappanee Street
Elkhart, Indiana 46516

Permit: #96-01

Dear Ms. Newvine:

Enclosed is the completed Industrial Wastewater Discharge Permit Application for Zurn PEX, LLC located at 1900 West Hively Avenue. Thank you for expediting this.

In 2008, we are improving the portion of our manufacturing process that is labeled as "1. Steam Cure System" on the enclosed site wastewater schematic. We are currently in the design & permitting stage so usage and discharge data are not yet known or available. In summary, we aim to change the main source of heat energy in this process from an open-loop steam heat, to a closed-loop radiant heat. This will reduce our water consumption and discharge by evaporation. We plan to have this system up and running by mid-June 2008.

Please don't hesitate to contact me if you have any comments about our permit renewal application or the improvement project that we have underway.

Sincerely,

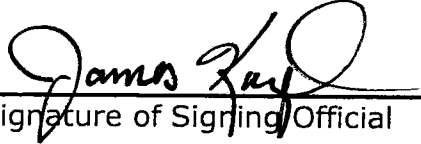
A handwritten signature in black ink, reading "James Konzel". The signature is fluid and cursive, with the first name "James" and last name "Konzel" clearly visible.

James Konzel, *Operations Manager*

Cc: Joe Foy
Trevor Johnson

**CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION**

*Unless otherwise stated, fill out completely.
If an item is not applicable, indicate by noting "NA".
Do not Leave Any Blank Spaces.*

Section 1 Applicant and Facility Description	
1. Name of Facility	<u>Zurn PEX, LLC (formerly US Brass)</u>
2. Mailing Address	<u>PO BOX 1746 (46515)</u>
3. Facility Address	<u>1900 WEST HIVELY AVENUE (46517)</u>
4. I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate.	
<u>JAMES KONZEL</u>	<u>OPERATIONS MANAGER</u>
Printed Name of Signing Official	Title
	<u>2-25-2008</u>
Signature of Signing Official	Date
5. Applicant's Authorized Agent or Contact Official	
<u>Trevor Johnson</u>	<u>VP / General Manager</u>
Name	Title
Mailing Address:	<u>HW 11 East, Commerce, TX 75429</u>
Telephone Number:	<u>903 - 886 - 9327</u>
Email Address:	<u>trevor.johnson@zurn.com</u>

**City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application**

Section 2 Plant Operations

1. Provide a detailed description of the manufacturing process or service activity provided on the premises (use additional sheets if necessary). *Include a detailed flow diagram.*

Zurn PEX, LLC manufactures plastic pipe by extrusion. Also warehouse and distribute copper, brass, and plastic plumbing components.

2. Principle raw materials used: _____

High Density Polyethylene

3. Chemicals and compounds used (include MSDS for each)

Garratt-Callahan Formulas 1560 (boiler treatment), 2012 (tower corrosion & scale), & 312 (tower algae).

4. Hours of process discharge into the sewer system per day: 24

5. List any environmental control permits held by or for the facility. Please include all applications presently being reviewed by any regulatory agency.

City of Elkhart Public Works & Utilities Industrial Wastewater Discharge Permit #96-01.

6. List all products manufactured or services provided by your facility along with the corresponding SIC number according to the Standard Industrial Classification Manual, Bureau of Budget, 1972 as amended:

Product or Service

SIC Code

Plastic Pipe for Potable Water

3088

**City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application**

Section 3 Water Usage and Discharge Information

1. List intake water sources and volume:

Municipal Water Service	<u>10,060</u>	gallons/day
Private Well	<u> </u>	gallons/day
Surface Water	<u> </u>	gallons/day
Other	<u> </u>	gallons/day
Total	<u>10,060</u>	gallons/day

2. List average volume of discharge or water loss:

City Sewer System	<u>1,490</u>	gallons / day
Natural Outlet (Pond, etc.)	<u> </u>	gallons / day
Waste Hauler	<u> </u>	gallons / day
Evaporation	<u>8,570</u>	gallons / day
Contained in Product	<u> </u>	gallons / day
Other	<u> </u>	gallons / day
Est. 30 Minute Peak Flow	<u> </u>	gallons / day
Total	<u>10,060</u>	gallons / day

3. List average water usage within the facility:

Process waste stream #1	<u>3,360</u>	gallons / day	Metered <input checked="" type="checkbox"/> Yes/ <input type="checkbox"/> No
Process waste stream #2	<u> </u>	gallons / day	Metered <input type="checkbox"/> Yes/ <input type="checkbox"/> No
Process waste stream #3	<u> </u>	gallons / day	Metered <input type="checkbox"/> Yes/ <input type="checkbox"/> No
Process waste stream #4	<u> </u>	gallons / day	Metered <input type="checkbox"/> Yes/ <input type="checkbox"/> No
Contact cooling water	<u>665</u>	gallons / day	Metered <input checked="" type="checkbox"/> Yes/ <input type="checkbox"/> No
Non-contact cooling water	<u> </u>	gallons / day	Metered <input type="checkbox"/> Yes/ <input type="checkbox"/> No
Sanitary water*	<u>825</u>	gallons / day	Metered <input type="checkbox"/> Yes/ <input checked="" type="checkbox"/> No
Boiler/Air Conditioner	<u>5,215</u>	gallons / day	Metered <input checked="" type="checkbox"/> Yes/ <input type="checkbox"/> No

**Sanitary Flow may be estimated at 15 GPD per employee, unless a more accurate method is available.*

**City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application**

4. Describe how each waste stream listed above is generated:

#1 See attached (ZurnPEX_permit9601_wastewaterschematic_2008.ppt)

#2 _____

#3 _____

#4 _____

Contact Cooling Recirculating chilled water cooling Polyethylene pipe.

5. Is discharge to the sewer Continuous ☒ Yes/☐ No Batch ☐ Yes/☒ No

If batch: Frequency of Discharge: _____ times per day

Volume: _____ gallons per batch

6. Attach a detailed schematic process diagram of the facility showing the locations of sewers referenced in Number 7 and the location of SIC processes referenced in sections 2-6. Show the locations of sampling points (both Federal Categorical and POTW) and the location of the pretreatment facility, if applicable.

7. List plant sewer outlets, size and flow (assign sequential reference number to each sewer starting with number 1; identify these on the schematic)

Reference Number	Sewer Size (inches)	Description of Sewer Location	Average Flow (GPD)
<u>2</u>	<u>4</u>	<u>Manufacturing</u>	<u>665</u>
<u>3</u>	<u>4</u>	<u>North Restrooms</u>	<u>405</u>
<u>4</u>	<u>4</u>	<u>South Restrooms</u>	<u>420</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application**

8. Do you have any of the following currently in use or in future plans:

	Current	Planned
Flow Metering:	<input checked="" type="checkbox"/> Yes/ <input type="checkbox"/> No	<input type="checkbox"/> Yes/ <input type="checkbox"/> No
Sampling Equipment:	<input checked="" type="checkbox"/> Yes/ <input type="checkbox"/> No	<input type="checkbox"/> Yes/ <input type="checkbox"/> No
Monitoring Equipment: (pH, Temp., TOC, etc.)	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	<input type="checkbox"/> Yes/ <input checked="" type="checkbox"/> No

Section 4 Pretreatment

1. If applicable, describe all Federal Categorical Pretreatment Standards that apply to all processes in your facility (40 CFR Part 403).

40 CFR Part 463

2. If any Federal Pretreatment Standards apply to your facility for its processes, and such standards are not yet being met, please include a compliance schedule according to 40 CFR Part 403.12(b)(7).

NA

3. Describe any wastewater treatment equipment or process in use and identify its location on the schematic.

NA

4. Describe any additional pretreatment facilities and processes under consideration. Include a specific timetable for completion:

NA

5. Do you have a spill prevention, containment and control plan (SPCC) or RCRA contingency plan for your facility? ☒Yes/☐No

If yes, please include a copy.

6. Do you utilize the city sewer to dispose of solvents, sludges or hazardous materials: ☐Yes/☒No

If yes, describe the materials and provide an estimate for annual frequency and quantity disposed.

5. Are solvents, sludges or hazardous materials transported and disposed off-site: ☒Yes/☐No

If yes, explain: Safety-Kleen picks-up used oils, greases, sludges.
Transports and disposes off-site.

8. Please indicate on Table 1 Pollutants which, if any, may be found in your wastewater discharge as a result of a direct discharge from your pretreatment facility, process operation or from an accidental spill.

**City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application**

9. Please list names of Certified Operators currently employed by your facility. Include Certification Number, Classification and Expiration Date of Certification.

Name: _____ Certification Number: _____

Class: _____ Expiration Date: _____

Name: _____ Certification Number: _____

Class: _____ Expiration Date: _____

Section 5 Wastewater Characteristics

1. Attach the most recent laboratory data, which characterize the facility discharge to the sewer system. Indicate the sampling location, time and date of sample collection, and type of sample collected (grab or composite). All sampling and analysis shall be performed in accordance with section 5.4.3 of the City of Elkhart Sewer Use and Rate Ordinance No. 4866 (40 CFR Part 136)

2. If no sampling data are available, testing MUST be performed on the discharge for any pollutant that may be present. The sample must be taken during normal production activity and be representative of typical wastewater flows and constituents. The parameters analyzed shall include all pollutants indicated on Table 1 that may be present in your waste stream (conventional, nonconventional and priority pollutants).

3. The City of Elkhart Public Works & Utilities reserves the right to require additional testing to characterize the facility discharge.

Section 6 Mailing Address

1. Please send completed application with all supporting attachments and enclosures to:

**ELKHART PUBLIC WORKS & UTILITIES
1201 SOUTH NAPPANEE STREET
ELKHART, IN 46516
ATTN: DIRECTOR, LABORATORY & PRETREATMENT**

2. For assistance in completing the application, call the Director of Laboratory and Pretreatment, at (574) 293-2572.

**City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application**

Table 1 – Pollutants

Section 1 Priority Pollutants

A. Metals and Inorganics

- ☐ Antimony; Sb
- ☐ Arsenic; As
- ☐ Asbestos
- ☐ Beryllium; Be
- ☐ Cadmium; Cd
- ☐ Chromium; Cr
- ☐ Copper; Cu
- ☐ Cyanides; CN
- ☐ Lead; Pb
- ☐ Mercury; Hg
- ☐ Nickel; Ni
- ☐ Selenium; Se
- ☐ Silver; Ag
- ☐ Thallium; Tl
- ☐ Zinc; Zn

B. Toxic Organics: Ethers

- ☐ Ether, bis(2-chloroethyl)
- ☐ Ether, bis(2-chloroisopropyl)
- ☐ Ether, 2-chloroethyl vinyl
- ☐ Ether, 4-chlorophenyl phenyl
- ☐ Ether, 4-bromophenyl phenyl
- ☐ Bis (2-chloroethoxy) methane

C. Toxic Organics: Phthalates

- ☐ Phthalate, dimethyl; DMP
- ☐ Phthalate, diethyl; DEP
- ☐ Phthalate, di-n-butyl; DBP
- ☐ Phthalate, di-n-octyl; DOP
- ☐ Phthalate, bis (2-ethylhexyl); DEHP
- ☐ Phthalate, butyl benzyl; BBP

D. Toxic Organics: Nitrogen Compounds

- ☐ Nitrosamine, dimethyl
- ☐ Nitrosamine, diphenyl
- ☐ Nitrosamine, di-n-propyl
- ☐ Benzidine
- ☐ Benzidine, 3, 3'-dichloro
- ☐ Hydrazine, 1,2-diphenyl
- ☐ Acrylonitrile

E. Toxic Organics: Phenols

- ☐ Phenol
- ☐ Phenol, 2-chloro
- ☐ Phenol, 2,4-dichloro; 2,4-DCP
- ☐ Phenol, 2,4,6-trichloro
- ☐ Phenol, pentachloro; PCP
- ☐ Phenol, 2-nitro
- ☐ Phenol, 4-nitro
- ☐ Phenol, 2,4-dinitro; 2,4-DNP
- ☐ Phenol, 2,4-dimethyl
- ☐ m-Cresol, p-chloro
- ☐ o-Cresol, 4,6-dinitro; DNOC

F. Toxic Organics: Aromatics

- ☐ Benzene
- ☐ Benzene, chloro
- ☐ Benzene, 1,2-dichloro
- ☐ Benzene, 1,3-dichloro
- ☐ Benzene, 1,4-dichloro
- ☐ Benzene, 1,2,4-trichloro
- ☐ Benzene, hexachloro; HCB
- ☐ Benzene, ethyl
- ☐ Benzene, nitro
- ☐ Toluene
- ☐ Toluene, 2,4-dinitro; DNT
- ☐ Toluene, 2,6-dinitro

G. Toxic Organics: Polynuclear Aromatic Hydrocarbons

- ☐ 2-Chloronaphthalene
- ☐ Benzo (a) anthracene
- ☐ Benzo (b) fluoranthene; B(b)F
- ☐ Benzo (k) fluoranthene; B(k)F
- ☐ Benzo (a) pyrene; BaP
- ☐ Ideno (1,2,3-cd) pyrene; IP
- ☐ Dibenzo (a,b) anthracene; DBA
- ☐ Acenaphthene
- ☐ Acenaphthythylene
- ☐ Anthracene
- ☐ Chrysene
- ☐ Fluoranthene
- ☐ Fluorene
- ☐ Naphthalene
- ☐ Phenanthrene
- ☐ Pyrene

H. Toxic Organics: PCB's

- ☐ PCB-1016; Arochlor 1016
- ☐ PCB-1221; Arochlor 1221
- ☐ PCB-1232; Arochlor 1232
- ☐ PCB-1242; Arochlor 1242
- ☐ PCB-1248; Arochlor 1248
- ☐ PCB-1254; Arochlor 1254
- ☐ PCB-1260; Arochlor 1260

City of Elkhart Public Works & Utilities
Industrial Wastewater Discharge Permit Application

I. Toxic Organics: Halogenated Hydrocarbons Halogenated

Aliphatics

- ☐ Methane Chloro; Methyl chloride
- ☐ Methane, Dichloro; Methylene chloride
- ☐ Methane, trichloro; Chloroform
- ☐ Methane, tetrachloro; Carbon tetrachloride
- ☐ Ethane, chloro
- ☐ Ethane, 1,1-dichloro
- ☐ Ethane, 1,2-dichloro
- ☐ Ethane, 1,1,1-trichloro
- ☐ Ethane, 1,1,2-trichloro
- ☐ Ethane, 1,1,2,2-tetrachloro
- ☐ Ethane, hexachloro
- ☐ Ethene, chloro; Vinyl chloride
- ☐ Propane, 1,2-dichloro
- ☐ Propene, 1,3-dichloro
- ☐ Butadiene, hexachloro; HCBD
- ☐ Cyclopentadiene, hexachloro; HCCPD
- ☐ Methane, bromo; Methyl bromide
- ☐ Methane, dichlorobromo
- ☐ Methane, chlorodibromo
- ☐ Methane, Tribromo; Bromoform
- ☐ Ethene, trichloro
- ☐ Ethene, 1,1-dichloro; 1,1-DCE
- ☐ Ethene, 1,2-trans-dichloro
- ☐ Ethene, tetrachloro

J. Toxic Organics: Pesticides

- ☐ alpha-Endosulfan
- ☐ Endosulfan sulfate
- ☐ beta-Endosulfan
- Hexachlorocyclohexanes:**
- ☐ alpha-BHC
- ☐ beta-BHC
- ☐ delta-BHC
- ☐ gamma-BHC; Lindane
- ☐ Aldrin; HHDN
- ☐ Dieldrin; HEOD
- ☐ 4,4'-DDE
- ☐ 4,4'-DDT; p,p'-DDT
- ☐ 4,4-DDD; p,p'-DDD; p,p'-TDE
- ☐ Endrin
- ☐ Endrin aldehyde
- ☐ Heptachlor
- ☐ Heptachlor epoxide
- ☐ Chlordane
- ☐ Toxaphene

K. Toxic Organics: Oxygenated Compounds

- ☐ Acrolein

L. Toxic Organics: Miscellaneous

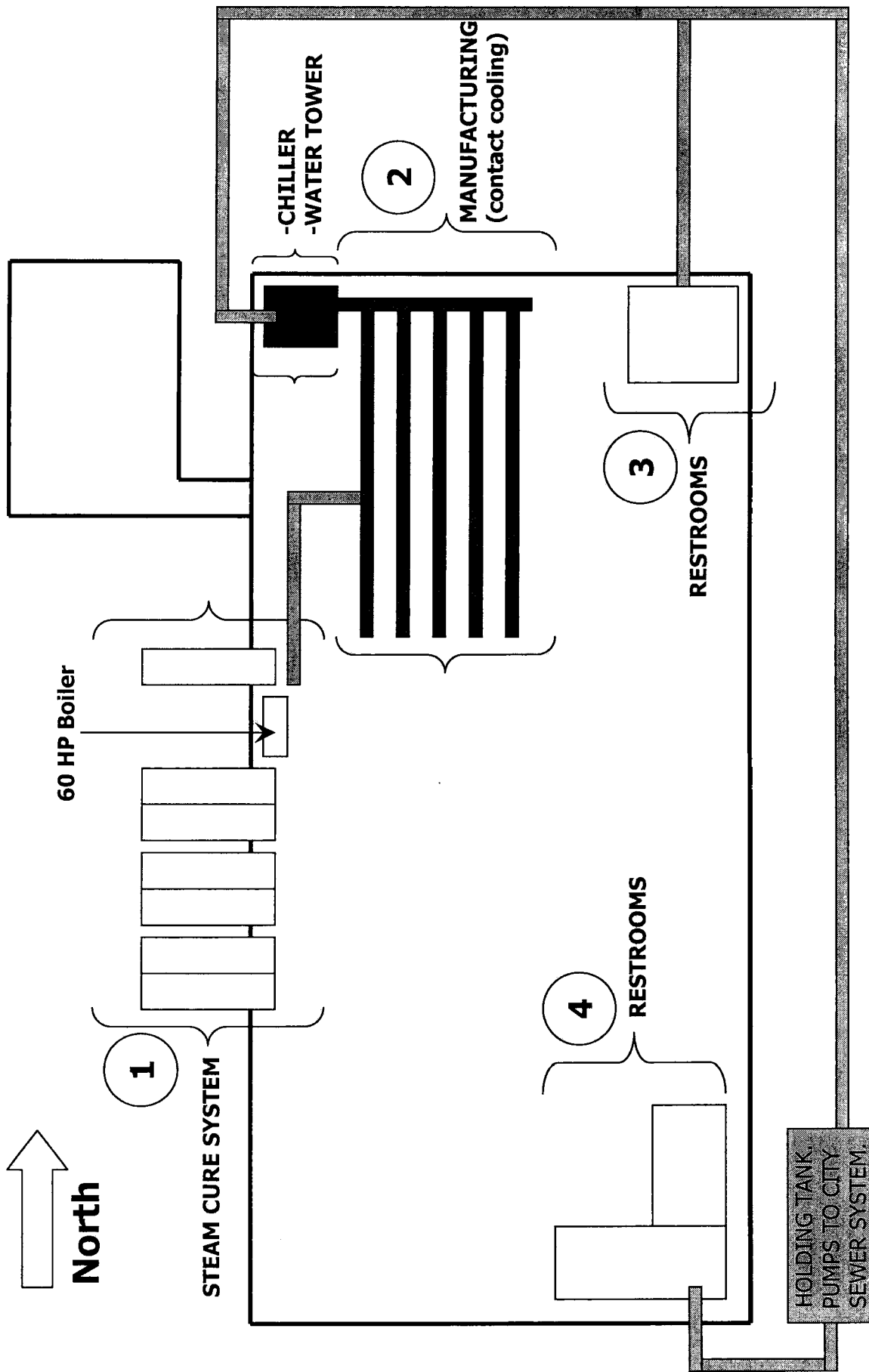
- ☐ Isophorone
- ☐ 2,3,7,8-tetrachlorodibenzo-p-dioxin; TCDD; dioxin

Section 2 Conventional Pollutants

- ☐ Carbonaceous Biochemical Oxygen (cBOD₅) > 250 mg/L
- ☐ 10 units < pH < 5 units
- ☐ Total Suspended Solids (TSS) > 250 mg/L
- ☐ Oil and Grease (O & G)

Section 3 Nonconventional Pollutants

- ☐ Ammonia (NH₃-N)
- ☐ Surfactants
- ☐ Phosphorus, Total



ZurnPEX_Permit9601_wastewatersc
hematic_2008.ppt

2/26/2008

	DESCRIPTION	SYSTEM INTAKE	SYSTEM DISCHARGE
1. STEAM CURE SYSTEM	Softened municipal water is fed into a 60 HP boiler, which converts it to steam. This steam is fed into 7 cure ovens and this steam is allowed to escape into the atmosphere through vents. The steam system is entirely open loop.	Up to 6,200 GPD, based on production rate.	Up to 5,800 GPD lost to evaporation (steam). Water softener regeneration and boiler blowdown 400gpd to city sewer.
2. MANUFACTURING	Municipal water is used to cool plastic pipe as it's being manufactured at 400°F. The 200-Ton cooling tower loses 1-2% of its recirculation rate (200GPM) to evaporation during warmer months. Production irregularities cause overflow resulting in discharge that averages 265gpd. Otherwise, the production system continuously recirculates.	Up to 5,000 GPD, based on climate.	Up to 5,000 GPD lost to evaporation when cooling tower fans are running. System overflows an average of 265gpd to city sewer.
3. RESTROOMS	27 employees estimated at 15 GPD per employee. Restrooms consist of stools, urinals, and sinks.	405gpd	405gpd to city sewer.
4. RESTROOMS	28 employees estimated at 15 GPD per employee. Restrooms consist of stools, urinals, and sinks.	420gpd	420gpd to city sewer.

Total Municipal Water Intake: up to 10,060 GPD.
Total Lost to Evaporation: up to 8,570 GPD.
Total Discharge to Sewer: 1,490 GPD

2/26/2008

ZurnPEX_Permit9601_wastewatersc
hematic_2008.ppt

**REPORT OF ANALYSIS**

Mr. Jerry Fussell
Advanced Sampling Technologies Inc
825 West Catalpa Drive
Mishawaka, IN 46545
Tel No: 574-254-0506
Fax No: 574-254-0506
PO No:
Project Name: Zurn-US Brass

Report Date: 7/13/07
EIS Order No: 070600278
EIS Sample No: 116415
EIS Project No: 2889-1000-07

Client Sample ID: Recirculating Tank
Date Collected: 6/28/07
Date Received: 6/28/07
Collected By: J. Fussell


This report presents results of analysis for your sample(s) received under our Order No above. This Number is to be used in all inquiries concerning this report. The EIS Sample No above, as well as your Sample ID, refer to the first sample in a multi-sample submission

DEFINITIONS:

MDL = Method Detection Limit normally achieved in the absence of interferences or other matrix difficulties.
RDL = Reporting Detection Limit achieved in your sample. If numerically greater than the MDL, dilutions were required in order to perform the analysis. If numerically less than the MDL, alternate techniques were employed.
nd = Not Detected at the RDL value. If present, result is less than this value.
< = Not Detected at the numerical value shown. If present, result is less than this value.
[] = Result is estimated due to matrix interferences or calibration curve exceedence.

CHAIN-OF-CUSTODY is enclosed if received with your sample submission.

DRINKING WATER CERTIFICATIONS: Chemistry = C-71-02 Bacteriology = M-76-5


QUALITY ASSURANCE OFFICER


LABORATORY DIRECTOR

The data in this report has been reviewed and complies with EIS Quality Control unless specifically addressed above.

SAMPLE RESULTS

Page 2 of 2

CLIENT SAMPLE ID: Recirculating Tank
CLIENT PROJECT: Zurn-US Brass
SAMPLE TYPE: Water(Non DW)
Date Collected: 6/28/07

Report Date: 7/13/07
EIS Sample No: 116415
EIS Order No: 070600278
Date Received: 6/28/07

Parameter	Results	Units	RDL	MDL	Test Date	Analyst ID	Method
BOD,Carbonaceous	<6	mg/L	6	2	6/28/07	E21	5210 B
Oil&Grease,Total	2.8	mg/L	0.5	0.5	7/6/07	E21	5520 B
pH	8.8	SU			6/28/07	E21	4500-H B
Solids,Total Suspended	2	mg/L	1	1	6/29/07	E21	2540 D



Monday April 19th

March 19, 2004

Lynn Newvine
Laboratory and Pretreatment Director
City of Elkhart, Public Works and Utilities
1201 S. Nappanee Street
Elkhart, Indiana 46516

Permit: #96-01

Dear Ms. Newvine:

Thank you for extending our deadline to resubmit our application for an Industrial Wastewater Discharge Permit so that we could accurately account for water usage and discharge at our facility. Enclosed is the completed application.

We discovered several factors that caused the discrepancies between our last application and our actual water & sewer bill. Mainly, we found that we evaporate a very large portion of our water intake by our 60-HP boiler, and by our 200-Ton water-cooling tower. Additionally, there were several leaks discovered that have been fixed.

In summary, we are intaking between 2,000 and 9,640 GPD, and discharging a fixed 840 GPD back to the city sewer. Our water intake varies with the climate and with our rate of production. We have installed water meters on our evaporation processes and keep an accurate monthly log, so that we can accurately gage how much water is being fed back to the sewer. This will also help us detect leaks that may occur within our process systems.

We have determined that basing our sewage charges on water intake is not an accurate accounting method because we loose so much water to evaporation. We would like the City of Elkhart to consider basing our sewer charges on a fixed rate of 840 GPD.

I look forward to meeting with you to discuss using alternate flow data for our sewage charges and to learn the city requirements for calibration, etc. I will contact you towards the end of the week of March 26th.

Sincerely,

James Konzel, Operations Manager

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

Unless other wise stated, all items are to be filled out completely.

If an item is not applicable, indicate by noting "NA".

SECTION 1 APPLICANT AND FACILITY DESCRIPTION

1. Name of Facility Zurn Pex

(formerly US Brass)

2. Mailing Address P.O. Box 1746 (46515)

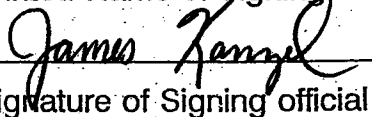
3. Facility Address 1900 W. Hively Avenue

Elkhart, IN 46517

4. I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate.

James Konzel

Printed Name of Signing Official



Signature of Signing official

Operations Mgr

Title

3-19-04

Date

5. Applicant's Authorized Agent or Contact Official

Trevor Johnson, Plant Manager

Name and Title

HW 11 East, Commerce, TX 75429 (903) 886-2580

Address and Telephone Number

ZURN00109

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION 2 PLANT OPERATIONS

1. Provide a detailed description of the manufacturing process or service activity provided on the premises (use additional sheets if necessary).

Manufacture plastic pipe by extrusion.

Warehouse and distribute copper, brass and plastic plumbing components.

2. Principal raw materials used: High Density Polyethylene (HDPE)

3. Chemicals and compounds used: WT-66 Scale, sludge and corrosion
inhibitor for cooling towers. Formula 1560 Internal boiler water
treatment. (see attached MSDS)

4. Hours of discharge into the sewer system per day: typically 24 hrs/day, 5 days/week

5. List any environmental control permits held by or for the facility. Please include all applications presently being revised by any regulatory agency.

City of Elkhart Public Works and Utilities,

Industrial Wastewater Discharge Permit #96-01

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

6. List all products manufactured or services provided by your facility along with the corresponding SIC (Standard Industrial Classification) number(s) according to The Standard Industrial Classification Manual, Bureau of Budget, 1972 as amended:

Product or Service	SIC Code
Plastic pipe for potable water	3088

SECTION 3. WATER USAGE AND DISCHARGE INFORMATION

1. List intake water sources and volume:

Municipal Water Service	<u>9,640</u>	gallons / day
Private Well	<u> </u>	gallons / day
Surface Water	<u> </u>	gallons / day
Other <u> </u>	<u> </u>	gallons / day
Total	<u>9,640</u>	gallons / day

2. List average volume of discharge or water loss:

City Sewer System	<u>840</u>	gallons / day
Natural Outlet (Pond etc.)	<u> </u>	gallons / day
Waste Hauler	<u> </u>	gallons / day
Evaporation	<u>8,800</u>	gallons / day
Contained in Product	<u> </u>	gallons / day
Other <u> </u>	<u> </u>	gallons / day
Estimated 30 Minute Peak Flow	<u> </u>	gallons / day
Total	<u>9,640</u>	gallons / day

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

3. List average water usage within the facility: see attached schematic

Process waste stream #1	<u>2,900</u> gallons/day	Metered <u>(Y)</u> / N (<u>manufacturing</u>)
Process waste stream #2	_____ gallons/day	Metered Y / N
Process waste stream #3	_____ gallons/day	Metered Y / N
Process waste stream #4	_____ gallons/day	Metered Y / N
Contact cooling water	_____ gallons/day	Metered Y / N
Non-contact cooling water	_____ gallons/day	Metered Y / N
Sanitary water*	<u>540</u> gallons/day	Metered Y / <u>(N)</u>
<u>Boiler</u> Air Conditioner	<u>6,200</u> gallons/day	Metered <u>(Y)</u> / N (<u>steam cure system</u>)

*Sanitary Flow may be estimated at 15 GPD per employee, unless a more accurate method is available. (36 employees)

4. Describe how each process and contact cooling waste stream is generated:

#1 See attached description.

#2 _____

#3 _____

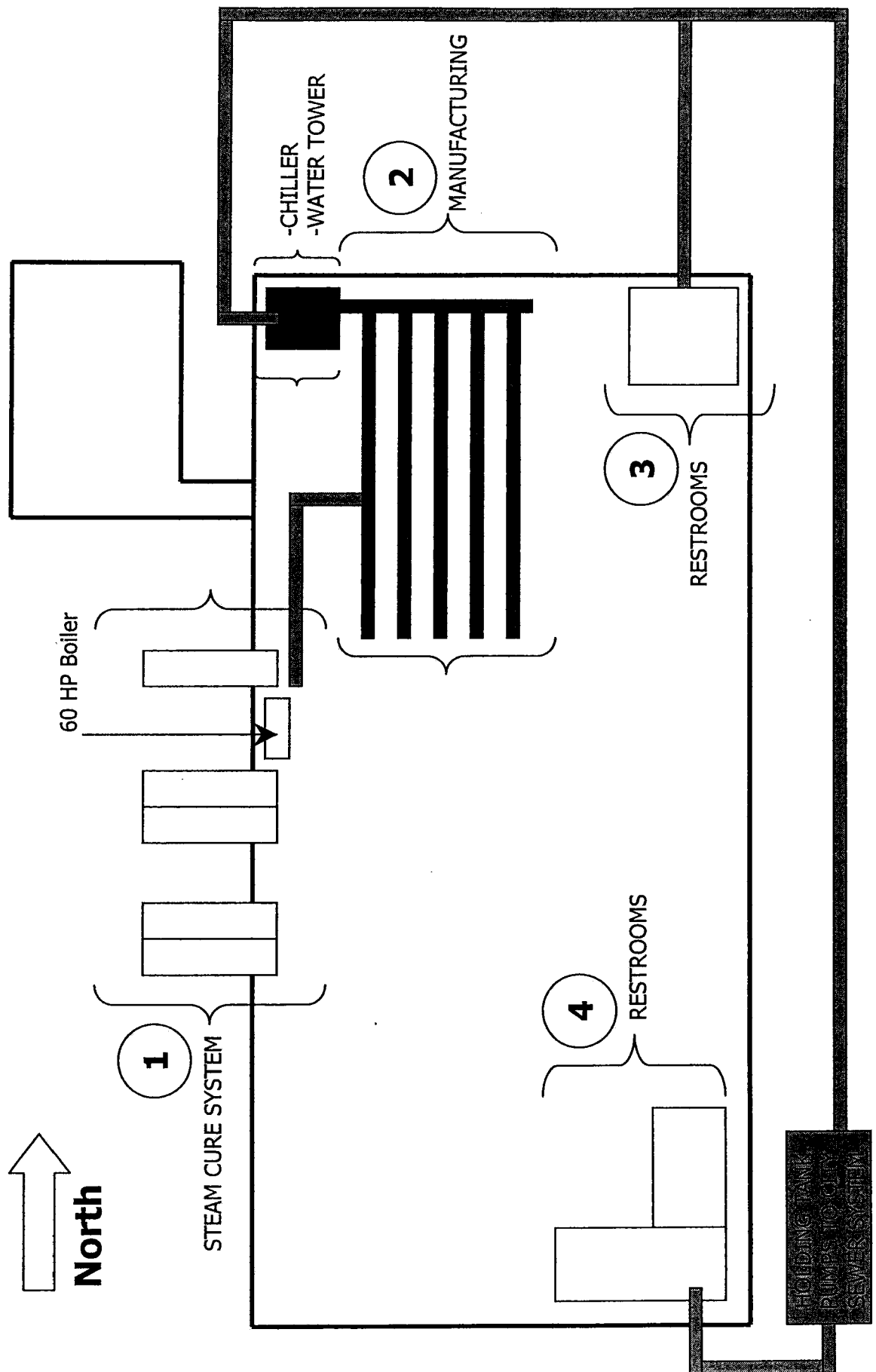
#4 _____

Contact Cooling _____

5. Is discharge to the sewer: Continuous (Y) / N Batch Y / (N)

If batch: Frequency of discharge: _____ times per day
Volume: _____ gallons / batch

6. Attach a schematic process diagram of the facility showing the locations of sewers referenced in Number 7 below and the location of SIC processes referenced in section 2-6. Show the location of sampling points, (both Federal Categorical and POTW) and the location of the pretreatment facility, if applicable.



	DESCRIPTION	SYSTEM INTAKE	SYSTEM DISCHARGE
1. STEAM CURE SYSTEM	Softened municipal water is fed into a 60 HP boiler, which converts it to steam. This steam is fed into 5 cure ovens and this steam is allowed to escape into the atmosphere through vents. The steam system is entirely open loop.	Up to 6,200 GPD, based on production rate.	Up to 6,000 GPD lost to evaporation (steam). Water softener regeneration of 200 GPD to city sewer.
2. MANUFACTURING	Municipal water is used to cool plastic pipe as it's being manufactured at 400°F. The 200-Ton cooling tower loses 1% of its recirculation rate (200GPM) to evaporation during warmer months. Also, weekly shutdowns cause overflow resulting in discharge of about 100 gal/day. Otherwise, the system operates closed-loop.	Up to 2,900 GPD, based on climate.	Up to 2,800 GPD lost to evaporation when cooling tower fans are running (May-Sept). System overflows 100 GPD to city sewer.
3. RESTROOMS	14 employees estimated at 15 GPD per employee. Restroom consists of stools, urinals, and sinks.	210 GPD	210 GPD to city sewer.
4. RESTROOMS	22 employees estimated at 15 GPD per employee. Restroom consists of stools, urinals, and sinks.	330 GPD	330 GPD to city sewer.

Total Municipal Water Intake: up to 9,640 GPD.

Total Lost to Evaporation: up to 8,800 GPD.

Total Discharge to Sewer: 940 GPD

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

7. List plant sewer outlets, size and flow (assign sequential reference number to each sewer starting with number 1)

Reference Number	Sewer Size (inches)	Description of Sewer Location	Average Flow (GPD)
(2.)	4"	Manufacturing	300 GPD
(3.)	4"	Restroom	210 GPD
(4.)	4"	Restroom	330 GPD

8. Do you have any of the following currently in use or in future plans:

	Current	Planned
Flow Metering	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input type="radio"/> Y / <input type="radio"/> N
Sampling Equipment	<input checked="" type="radio"/> Y / <input type="radio"/> N	<input type="radio"/> Y / <input type="radio"/> N
Monitoring Equipment	<input type="radio"/> Y / <input checked="" type="radio"/> N	<input type="radio"/> Y / <input checked="" type="radio"/> N

SECTION 4. PRETREATMENT

1. If applicable, describe all Federal Categorical Pretreatment Standards that apply to all processes in your facility (40 CFR Part 403). NA

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

2. If any Federal Categorical Pretreatment Standards apply to your facility and/or its processes, and such standards are not yet being met, please include a compliance schedule according to 40 CFR Part 403.12 (b) (7).

3. Describe any wastewater treatment equipment or process in use:

4. Describe any additional pretreatment facilities and/or processes under consideration. Include a specific timetable for completion: (use additional sheets if necessary)

5. Do you have a spill prevention, containment and control plan (SPCC) or RCRA contingency plan for your facility: ☒ Y / N Attached.

6. Do you utilize the city sewer to dispose of solvents, sludges, or hazardous materials: Y / ☒ N If yes, describe the materials and provide an estimate for annual quantity disposed: _____

7. Are solvents, sludges, or hazardous materials transported and disposed off-site: ☒ Y / N If yes, explain: Waste oil - Berreth Oil

8. Please indicate on Table I **POLLUTANTS** which, if any, may be found in your wastewater discharge as a result of a direct discharge from your pretreatment facility, process operation **OR** from an accidental spill.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

9. Please list names of Certified Operators currently employed by your facility. Include Certification Number, Classification and Expiration Date of Certification.

Name: _____ Certification Number _____
Class: _____ Expiration Date: _____

Name: _____ Certification Number _____
Class: _____ Expiration Date: _____

Section 5. WASTEWATER CHARACTERISTICS

1. Attach the most recent laboratory data, which characterizes the facility discharge to the sewer system. Indicate the sampling location, time and date of sample collection, and type of sample collected (grab or composite). All sampling and analyses shall be performed in accordance with Section 3.5.1 of the City of Elkhart - Sewer Use and Rate Ordinance No. 4187 (40 CFR Part 136).

2. If no sampling data are available, testing **MUST** be performed on the discharge for any pollutant that may be present. The sample must be taken during normal production activity and be representative of typical wastewater flows and constituents. The parameters analyzed should include all pollutants indicated on Table I that may be present in your waste stream (conventional, nonconventional, and priority pollutants).

3. The City of Elkhart Public Works & Utilities reserves the right to require additional testing to characterize the facility discharge.

09-Jan-04
11:04:02 AM

ELKHART PUBLIC WORKS AND UTILITIES
LABORATORY REPORT FROM THE OFFICE OF
PRETREATMENT

INDUSTRY: U.S. Brass Company
ADDRESS: 1900 W. Hively Avenue
Elkhart, Indiana 46517-

SAMPLE TAG NUMBER: 2003-1836
MONITORING EVENT: ☒ SCHEDULED
☐ UNSCHEDULED ☐ DEMAND ☐ SPECIAL

SAMPLE TYPE: ☒ COMPOSITE ☐ GRAB

ANALYTICAL SERVICES PROVIDED BY:

SAMPLE STARTED: 12/8/2003 9:40 AM

☒ PUBLIC WORKS AND UTILITIES

SAMPLING COMPLETED: 12/9/2003 8:55 AM

☐ CONTRACT LABORATORY

SAMPLE LOCATION: END OF PROCESS

ANALYTICAL RESULTS:

PERMIT NUMBER: 96-01

ANALYSIS	RESULTS	LIMITS
pH:	8.80	s. u. 5-10.0
CBOD5:		*250
TSS:	1	*250
COD:	41	
CADMIUM:	<0.003	1.200
COPPER:	0.018	4.5
CHROMIUM:	<0.019	7
LEAD:	<0.017	0.6
NICKEL:	<0.022	4.1
SILVER:	<0.004	1.2
ZINC:	<0.003	4.2
MERCURY:		0.02
CYANIDE:		1.75
NH3:	<0.10	
PO4:	1.29	
TTO:		
VOC:		
ARSENIC, TOTAL:		2.1
OIL GREASE:		

*EXCESS CONCENTRATION SURCHARGED

METALS USED TO CALCULATE TOTAL METALS

**ALL RESULTS REPORTED IN MG/L UNLESS OTHERWISE NOTED

ZURN00118

30-Dec-03
10:28:58 AM

ELKHART PUBLIC WORKS AND UTILITIES
LABORATORY REPORT FROM THE OFFICE OF
PRETREATMENT

INDUSTRY: U.S. Brass Company
ADDRESS: 1900 W. Hively Avenue
Elkhart, Indiana 46517-

SAMPLE TYPE: ☐ COMPOSITE ☒ GRAB

SAMPLE STARTED: 12/8/2003 9:40 AM

SAMPLING COMPLETED: 12:00 AM

SAMPLE LOCATION: END OF PROCESS

SAMPLE TAG NUMBER: 2003-1835

MONITORING EVENT: ☒ SCHEDULED

☐ UNSCHEDULED ☐ DEMAND ☐ SPECIAL

ANALYTICAL SERVICES PROVIDED BY:

☒ PUBLIC WORKS AND UTILITIES

☒ CONTRACT LABORATORY

ANALYTICAL RESULTS:

PERMIT NUMBER: 96-01

ANALYSIS	RESULTS	LIMITS
pH:	8.30	s. u. 5-10.0
CBOD5:		*250
TSS:		*250
COD:		
CADMIUM:		1.200
COPPER:		4.5
CHROMIUM:		7
LEAD:		0.6
NICKEL:		4.1
SILVER:		1.2
ZINC:		4.2
MERCURY:		0.02
CYANIDE:	<0.003	1.75
NH3:		
PO4:		
TTO:		
VOC:	0.015	
ARSENIC, TOTAL:		2.1
OIL GREASE:		

*EXCESS CONCENTRATION SURCHARGED

METALS USED TO CALCULATE TOTAL METALS

**ALL RESULTS REPORTED IN MG/L UNLESS OTHERWISE NOTED

ZURN00119

Report Results To: **Lynn Newline, Laboratory Director**
1201 S. Nappanee Street
Elkhart, IN 46516
Phone: 574-293-2572
FAX: 574-293-7658

0312-085

[illegible]

RELINQUISHED BY (SIGNATURE)

RELINQUISHED BY (SIGNATURE) *Deanne P. Jones*

DATE: 12-9-03
TIME: 14:56

RECEIVED BY: (SIGNATURE)

DATE: TIME:

RECEIVED BY (SIGNATURE)

H:\FORMS\CHAIN.DOC

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

Unless other wise stated, all items are to be filled out completely.

If an item is not applicable, indicate by noting "NA".

SECTION 1 APPLICANT AND FACILITY DESCRIPTION

1. Name of Facility U.S. Brass

2. Mailing Address PO Box 1746
Elkhart, IN 46515

3. Facility Address 1900 West Hively Avenue
Elkhart, IN 46517

4. I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate.

RICHARD JAECKEL

Printed Name of Signing Official

Richard Jaeckel

Signature of Signing official

Operations Manager

Title

01-24-02

Date

5. Applicant's Authorized Agent or Contact Official

James Brown, Plant Manager

Name and Title

Highway 11 East, Commerce, TX 75428 PH: 903-886-9305

Address and Telephone Number

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION 2 PLANT OPERATIONS

1. Provide a detailed description of the manufacturing process or service activity provided on the premises (use additional sheets if necessary).

Manufacture potable water pipe and warehouse plastic, copper and brass
fittings used with the pipe.

2. Principal raw materials used: HDPE - high density polyethylene

3. Chemicals and compounds used: Softener salt, GCO-10 with visigard
for cooling tower.

4. Hours of discharge into the sewer system per day: 24 hours (5 days)

5. List any environmental control permits held by or for the facility. Please include all applications presently being revised by any regulatory agency.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

6. List all products manufactured or services provided by your facility along with the corresponding SIC (Standard Industrial Classification) number(s) according to The Standard Industrial Classification Manual, Bureau of Budget, 1972 as amended:

Product or Service	SIC Code
Plastic potable water pipe	3089

SECTION 3. WATER USAGE AND DISCHARGE INFORMATION

1. List intake water sources and volume:

Municipal Water Service	1750	gallons / day
Private Well	0	gallons / day
Surface Water	0	gallons / day
Other	0	gallons / day
Total	1750	gallons / day

2. List average volume of discharge or water loss:

City Sewer System	1700	gallons / day
Natural Outlet (Pond etc.)	0	gallons / day
Waste Hauler	0	gallons / day
Evaporation	50	gallons / day
Contained in Product	0	gallons / day
Other	0	gallons / day
Estimated 30 Minute Peak Flow		gallons / day
Total	1750	gallons / day

3. List average water usage within the facility:

*Sanitary Flow may be estimated at 15 GPD per employee, unless a more accurate method is available.

#1 Water recycles thru manufacturing & water cooling equipment. In the process

#3

#4

Contact Cooling

If batch: Frequency of discharge: _____ times per day

Volume: _____ gallons / batch

4

① SEWER OUTLET

DIVERTER BOX

COOLING TOWER
& CONTACT WATER

EMPLOYEE
BATHROOMS

②

Boiler

STEAM
ROOMS



③

EMPLOYEE
BATHROOMS

PUMPING
STATION

CITY
CONNECTION

U.S. BRASS
1900 W. 11th
ELY

ZURN00125

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

7. List plant sewer outlets, size and flow (assign sequential reference number to each sewer starting with number 1)

Reference Number	Sewer Size (inches)	Description of Sewer Location	Average Flow (GPD)
1	4"	Below Cooling Tower	1250
2		Employee Rest Room	180
3		Employee Rest Room	270

8. Do you have any of the following currently in use or in future plans:

	Current	Planned
Flow Metering	Y / (N)	Y / (N)
Sampling Equipment	(Y) / N	Y / N
Monitoring Equipment	Y / (N)	Y / (N)

SECTION 4. PRETREATMENT

1. If applicable, describe all Federal Categorical Pretreatment Standards that apply to all processes in your facility (40 CFR Part 403).

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

2. If any Federal Categorical Pretreatment Standards apply to your facility and/or its processes, and such standards are not yet being met, please include a compliance schedule according to 40 CFR Part 403.12 (b) (7).

3. Describe any wastewater treatment equipment or process in use:

4. Describe any additional pretreatment facilities and/or processes under consideration. Include a specific timetable for completion: (use additional sheets if necessary)

5. Do you have a spill prevention, containment and control plan (SPCC) or RCRA contingency plan for your facility: Y / ☒ N

6. Do you utilize the city sewer to dispose of solvents, sludges, or hazardous materials: Y / ☒ N If yes, describe the materials and provide an estimate for annual quantity disposed: _____

7. Are solvents, sludges, or hazardous materials transported and disposed off-site: ☒ Y / N If yes, explain: Waste Oil - Berreth Oil

Last - 11-20-95

8. Please indicate on Table I **POLLUTANTS** which, if any, may be found in your wastewater discharge as a result of a direct discharge from your pretreatment facility, process operation **OR** from an accidental spill.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

9. Please list names of Certified Operators currently employed by your facility. Include Certification Number, Classification and Expiration Date of Certification.

Name: _____ Certification Number _____
Class: _____ Expiration Date: _____

Name: _____ Certification Number _____
Class: _____ Expiration Date: _____

Section 5. WASTEWATER CHARACTERISTICS

1. Attach the most recent laboratory data, which characterizes the facility discharge to the sewer system. Indicate the sampling location, time and date of sample collection, and type of sample collected (grab or composite). All sampling and analyses shall be performed in accordance with Section 3.5.1 of the City of Elkhart Sewer Use and Rate Ordinance No. 4187 (40 CFR Part 136).
2. If no sampling data are available, testing **MUST** be performed on the discharge for any pollutant that may be present. The sample must be taken during normal production activity and be representative of typical wastewater flows and constituents. The parameters analyzed should include all pollutants indicated on Table I that may be present in your waste stream (conventional, nonconventional, and priority pollutants).
3. The City of Elkhart Public Works & Utilities reserves the right to require additional testing to characterize the facility discharge.

ELKHART PUBLIC WORKS AND UTILITIES
LABORATORY REPORT FROM THE OFFICE OF PRETREATMENT

INDUSTRY: U.S. Brass Company
ADDRESS: 1900 W. Hively Avenue
Elkhart, Indiana 46517-

SAMPLE TYPE: ☐ COMPOSITE ☒ GRAB

SAMPLE STARTED: 10/29/01 3:05 PM

SAMPLING COMPLETED: 0/29/01 3:05 PM

SAMPLE LOCATION: END OF PROCESS

SAMPLE TAG NUMBER: 2001-1598

MONITORING EVENT: ☒ SCHEDULED

☐ UNSCHEDULED ☐ DEMAND ☐ SPECIAL

ANALYTICAL SERVICES PROVIDED BY:

☐ PUBLIC WORKS AND UTILITIES

☒ CONTRACT LABORATORY

ANALYTICAL RESULTS

PERMIT NUMBER: 96-01

ANALYSIS	RESULTS	LIMITS
pH:	6.90	s. u. 5-10.0
CBOD5:		*250
TSS:		*250
COD:		
CADMIUM:		1.200
COPPER:		4.5
CHROMIUM:		7
LEAD:		0.6
NICKEL:		4.1
SILVER:		1.2
ZINC:		4.2
MERCURY:		0.02
CYANIDE:	<0.005	1.75
NH3:		
PO4:		
TTO:		
VOC:	<0.01	
ARSENIC, TOTAL:		2.1
OIL GREASE:		

*EXCESS CONCENTRATION SURCHARGED

METALS USED TO CALCULATE TOTAL METALS

**ALL RESULTS REPORTED IN MG/L UNLESS OTHERWISE NOTED

ZURN00129

ELKHART PUBLIC WORKS AND UTILITIES
LABORATORY REPORT FROM THE OFFICE OF PRETREATMENT

INDUSTRY: U.S. Brass Company
ADDRESS: 1900 W. Hively Avenue
Elkhart, Indiana 46517-

SAMPLE TYPE: ☒ COMPOSITE ☐ GRAB

SAMPLE STARTED: 10/30/01 1:15 PM

SAMPLING COMPLETED: 10/31/01 1:00 PM

SAMPLE LOCATION: END OF PROCESS

SAMPLE TAG NUMBER: 2001-1599

MONITORING EVENT: ☒ SCHEDULED

☐ UNSCHEDULED ☐ DEMAND ☐ SPECIAL

ANALYTICAL SERVICES PROVIDED BY:

☒ PUBLIC WORKS AND UTILITIES

☐ CONTRACT LABORATORY

ANALYTICAL RESULTS

PERMIT NUMBER: 96-01

ANALYSIS	RESULTS	LIMITS
pH:	8.50	s. u. 5-10.0
CBOD5:		*250
TSS:	1	*250
COD:	23	
CADMIUM:	<0.004	1.200
COPPER:	<0.002	4.5
CHROMIUM:	<0.023	7
LEAD:	<0.012	0.6
NICKEL:	0.052	4.1
SILVER:	<0.004	1.2
ZINC:	0.020	4.2
MERCURY:		0.02
CYANIDE:		1.75
NH3:	<0.1	
PO4:	0.66	
TTO:		
VOC:		
ARSENIC, TOTAL:		2.1
OIL GREASE:		

*EXCESS CONCENTRATION SURCHARGED

METALS USED TO CALCULATE TOTAL METALS

**ALL RESULTS REPORTED IN MG/L UNLESS OTHERWISE NOTED

ZURN00130

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION 6. MAILING ADDRESS

1. Please send completed application with all supporting attachments and enclosures to:

**ELKHART PUBLIC WORKS & UTILITIES
1201 S. NAPPANEE STREET
ELKHART, INDIANA 46516
ATTN: PRETREATMENT DIRECTOR**

2. For assistance in completing the application, call the Pretreatment Director at (219) 293-2572.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

Unless other wise stated, all items are to be filled out completely.

If an item is not applicable, indicate by noting "NA".

SECTION 1 APPLICANT AND FACILITY DESCRIPTION

1. Name of Facility U.S. Brass

2. Mailing Address PO Box 1746
Elkhart, IN 46515

3. Facility Address 1900 West Hively Avenue
Elkhart, IN 46517

4. I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true, complete and accurate.

RICHARD JAECKEL

Printed Name of Signing Official

Richard Jaeckel

Signature of Signing official

Operations Manager

Title

9-28-00

Date

5. Applicant's Authorized Agent or Contact Official

James Brown, Plant Manager

Name and Title

Highway 11 East, Commerce, TX 75428 PH: 903-886-9305

Address and Telephone Number

ZURN00132

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION 2 PLANT OPERATIONS

1. Provide a detailed description of the manufacturing process or service activity provided on the premises (use additional sheets if necessary).

Manufacture potable water pipe and warehouse plastic, copper and brass
fittings used with the pipe.

2. Principal raw materials used: HDPE - high density polyethylene

3. Chemicals and compounds used: Softener salt, GCO-10 with visigard
for cooling tower.

4. Hours of discharge into the sewer system per day: 24 hours (5 days)

5. List any environmental control permits held by or for the facility. Please include all applications presently being revised by any regulatory agency.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

6. List all products manufactured or services provided by your facility along with the corresponding SIC (Standard Industrial Classification) number(s) according to The Standard Industrial Classification Manual, Bureau of Budget, 1972 as amended:

Product or Service	SIC Code
Plastic potable water pipe	3089

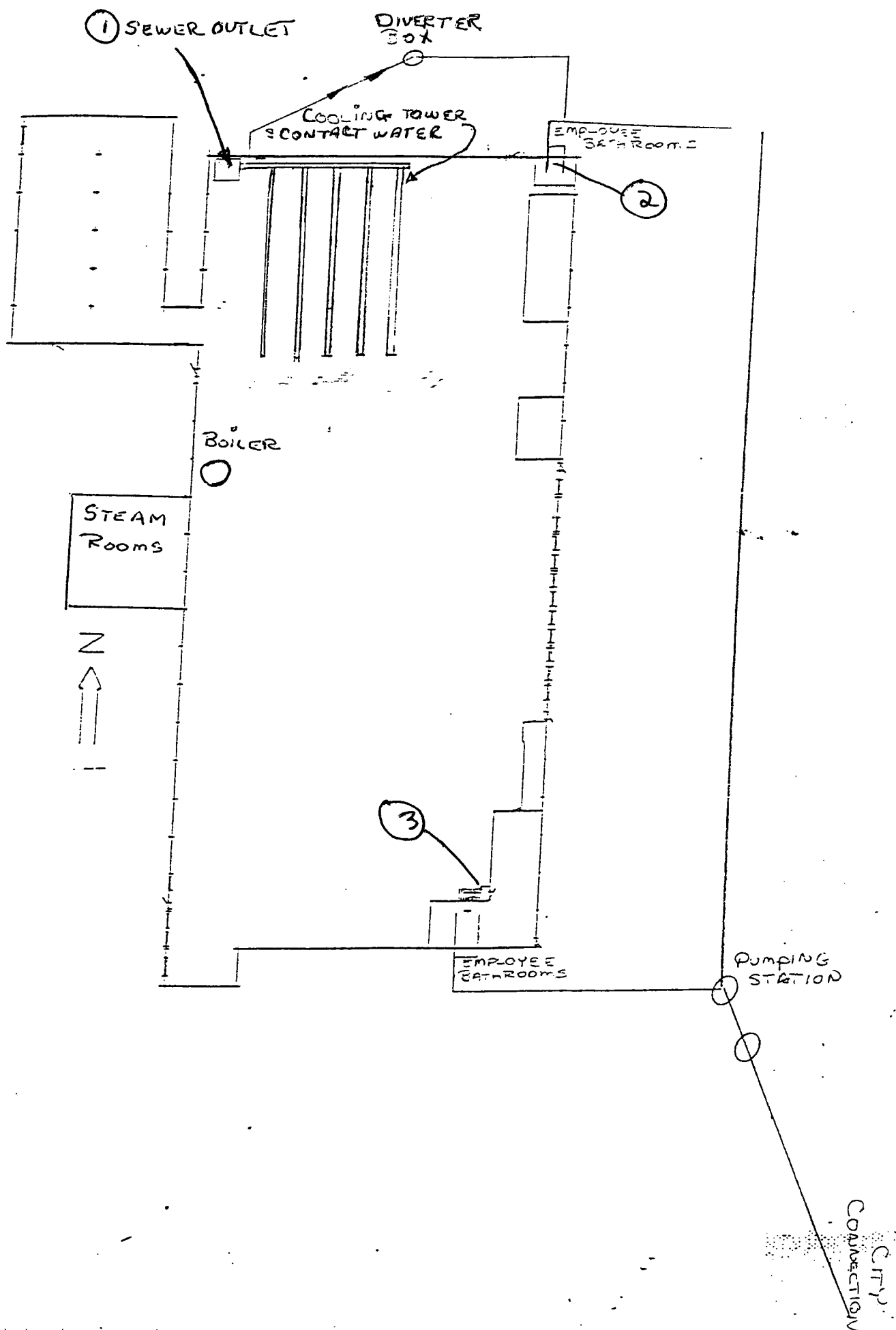
SECTION 3. WATER USAGE AND DISCHARGE INFORMATION

1. List intake water sources and volume:

Municipal Water Service	1750	gallons / day
Private Well	0	gallons / day
Surface Water	0	gallons / day
Other	0	gallons / day
Total	1750	gallons / day

2. List average volume of discharge or water loss:

City Sewer System	1700	gallons / day
Natural Outlet (Pond etc.)	0	gallons / day
Waste Hauler	0	gallons / day
Evaporation	50	gallons / day
Contained in Product	0	gallons / day
Other	0	gallons / day
Estimated 30 Minute Peak Flow		gallons / day
Total	1750	gallons / day



U.S. BRASS
1900 W. 11th
ST. OMAHA, NE

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

7. List plant sewer outlets, size and flow (assign sequential reference number to each sewer starting with number 1)

Reference Number	Sewer Size (inches)	Description of Sewer Location	Average Flow (GPD)
1	4"	Below Cooling Tower	1250
2		Employee Rest Room	180
3		Employee Rest Room	270

8. Do you have any of the following currently in use or in future plans:

	Current	Planned
Flow Metering	Y / <input checked="" type="radio"/> N	Y / <input checked="" type="radio"/> N
Sampling Equipment	<input checked="" type="radio"/> Y / N	Y / N
Monitoring Equipment	Y / <input checked="" type="radio"/> N	Y / <input checked="" type="radio"/> N

SECTION 4. PRETREATMENT

1. If applicable, describe all Federal Categorical Pretreatment Standards that apply to all processes in your facility (40 CFR Part 403).

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

2. If any Federal Categorical Pretreatment Standards apply to your facility and/or its processes, and such standards are not yet being met, please include a compliance schedule according to 40 CFR Part 403.12 (b) (7).

3. Describe any wastewater treatment equipment or process in use:

4. Describe any additional pretreatment facilities and/or processes under consideration. Include a specific timetable for completion: (use additional sheets if necessary)

5. Do you have a spill prevention, containment and control plan (SPCC) or RCRA contingency plan for your facility: Y / ☒ N

6. Do you utilize the city sewer to dispose of solvents, sludges, or hazardous materials: Y / ☒ N If yes, describe the materials and provide an estimate for annual quantity disposed: _____

7. Are solvents, sludges, or hazardous materials transported and disposed off-site:

☒ N If yes, explain: Waste Oil - Berreth Oil

Last - 11-20-95

8. Please indicate on Table I **POLLUTANTS** which, if any, may be found in your wastewater discharge as a result of a direct discharge from your pretreatment facility, process operation **OR** from an accidental spill.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

9. Please list names of Certified Operators currently employed by your facility. Include Certification Number, Classification and Expiration Date of Certification.

Name: _____ Certification Number _____
Class: _____ Expiration Date: _____

Name: _____ Certification Number _____
Class: _____ Expiration Date: _____

Section 5. WASTEWATER CHARACTERISTICS

1. Attach the most recent laboratory data, which characterizes the facility discharge to the sewer system. Indicate the sampling location, time and date of sample collection, and type of sample collected (grab or composite). All sampling and analyses shall be performed in accordance with Section 3.5.1 of the City of Elkhart Sewer Use and Rate Ordinance No. 4187 (40 CFR Part 136).

2. If no sampling data are available, testing **MUST** be performed on the discharge for any pollutant that may be present. The sample must be taken during normal production activity and be representative of typical wastewater flows and constituents. The parameters analyzed should include all pollutants indicated on Table I that may be present in your waste stream (conventional, nonconventional, and priority pollutants).

3. The City of Elkhart Public Works & Utilities reserves the right to require additional testing to characterize the facility discharge.

ELKHART PUBLIC WORKS AND UTILITIES

LABORATORY REPORT FROM THE OFFICE OF PRETREATMENT

INDUSTRY: U.S. Brass Company
ADDRESS: 1900 W. Hively Avenue
Elkhart, Indiana 46517-

SAMPLE TAG NUMBER: 2000-509

MONITORING EVENT: ☐ SCHEDULED
☒ UNSCHEDULED ☐ DEMAND ☐ SPECIAL

SAMPLE TYPE: ☐ COMPOSITE ☒ GRAB

ANALYTICAL SERVICES PROVIDED BY:

SAMPLE STARTED: 4/6/00 11:00 AM

☒ PUBLIC WORKS AND UTILITIES

SAMPLING COMPLETED 4/6/00 11:00 AM

☐ CONTRACT LABORATORY

PERMIT NUMBER: 96-01

SAMPLE LOCATION: END OF PROCESS

ANALYTICAL RESULTS

ANALYSIS	RESULTS	LIMITS
pH:	6.70	s. u. 5-10.0
CBOD5:		*250
TSS:		*250
COD:		
CADMIUM:		
COPPER:		
CHROMIUM:		
LEAD:		
NICKEL:		
SILVER:		
ZINC:		
MERCURY:		
CYANIDE:	<0.005	
NH3:		
PO4:		
TTO:		
VOC:		
ARSENIC, TOTAL:		
OIL GREASE:		

*EXCESS CONCENTRATION SURCHARGED

METALS USED TO CALCULATE TOTAL METALS

**ALL RESULTS REPORTED IN MG/L UNLESS OTHERWISE NOTED

ZURN00140

ELKHART PUBLIC WORKS AND UTILITIES

LABORATORY REPORT FROM THE OFFICE OF PRETREATMENT

INDUSTRY: U.S. Brass Company
ADDRESS: 1900 W. Hively Avenue
Elkhart, Indiana 46517-

SAMPLE TYPE: ☒ COMPOSITE ☐ GRAB

SAMPLE STARTED: 4/6/00 11:00 AM

SAMPLING COMPLETED 4/7/00 10:45 AM

SAMPLE LOCATION: END OF PROCESS

SAMPLE TAG NUMBER: 2000-510

MONITORING EVENT: ☐ SCHEDULED

☒ UNSCHEDULED ☐ DEMAND ☐ SPECIAL

ANALYTICAL SERVICES PROVIDED BY:

☒ PUBLIC WORKS AND UTILITIES

☐ CONTRACT LABORATORY

PERMIT NUMBER: 96-01

ANALYTICAL RESULTS

ANALYSIS	RESULTS	LIMITS
pH:	8.34	s. u. 5-10.0
CBOD5:		*250
TSS:	2	*250
COD:	11	
CADMIUM:	0.008	
COPPER:	0.067	
CHROMIUM:	<0.01	
LEAD:	0.026	
NICKEL:	<0.03	
SILVER:	<0.003	
ZINC:	0.010	
MERCURY:		
CYANIDE:		
NH3:	<0.10	
PO4:	0.55	
TTO:		
VOC:		
ARSENIC, TOTAL:		
OIL GREASE:		

*EXCESS CONCENTRATION SURCHARGED

METALS USED TO CALCULATE TOTAL METALS

**ALL RESULTS REPORTED IN MG/L UNLESS OTHERWISE NOTED

ZURN00141

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

SECTION 6. MAILING ADDRESS

1. Please send completed application with all supporting attachments and enclosures to:

**ELKHART PUBLIC WORKS & UTILITIES
1201 S. NAPPANEE STREET
ELKHART, INDIANA 46516
ATTN: PRETREATMENT DIRECTOR**

2. For assistance in completing the application, call the Pretreatment Director at (219) 293-2572.

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

TABLE 1 (CONTINUED)

- ☐ Methane, bromo; Methyl bromide
- ☐ Methane, dichlorobromo
- ☐ Methane, chlorodibromo
- ☐ Methane, Tribromo; Bromoform
- ☐ Ethene, trichloro
- ☐ Ethene, 1,1-dichloro; 1,1-DCE
- ☐ Ethene, 1,2-trans-dichloro
- ☐ Ethene, tetrachloro

J. TOXIC ORGANICS: PESTICIDES

- ☐ alpha-Endosulfan
- ☐ Endosulfan sulfate
- ☐ beta-Endosulfan
- Hexachlorocyclohexanes:
- ☐ alpha-BHC
- ☐ beta-BHC
- ☐ delta-BHC
- ☐ gamma-BHC; Lindane
- ☐ Aldrin; HHDN
- ☐ Dieldrin; HEOD
- ☐ 4,4'-DDE
- ☐ 4,4'-DDT; p,p'-DDT
- ☐ 4,4 -DDD; p,p'-DDD; p,p'-TDE
- ☐ Endrin
- ☐ Endrin aldehyde
- ☐ Heptachlor
- ☐ Heptachlor epoxide
- ☐ Chlordane
- ☐ Toxaphene

K. TOXIC ORGANICS: OXYGENATED COMPOUNDS

- ☐ Acrolein

L. TOXIC ORGANICS: MISCELANEOUS

- ☐ Isophorone
- ☐ 2,3,7,8-tetrachlorodibenzo-p-dioxin;
TCDD; dioxin

SECTION 2 CONVENTIONAL POLLUTANTS

- ☐ Carbonaceous Biochemical Oxygen
(cBOD₅) > 250 mg/l
- ☐ 10 Units <pH < 5 units
- ☐ Total Suspended Solids (TSS) >250 mg/L
- ☐ Oil and Grease (O & G)

SECTION 3 NONCONVENTIONAL POLLUTANTS

- ☐ Ammonia (NH₃-N)
- ☐ Surfactants
- ☐ Phosphorus, Total

CITY OF ELKHART PUBLIC WORKS & UTILITIES
INDUSTRIAL WASTEWATER DISCHARGE PERMIT APPLICATION

TABLE 1
POLLUTANTS

SECTION 1 PRIORITY POLLUTANTS

A. **METALS & INORGANICS**

- ___ Antimony; Sb
- ___ Arsenic; As
- ___ Asbestos
- ___ Beryllium; Be
- ___ Cadmium; Cd
- ___ Chromium; Cr
- ___ Copper; Cu
- ___ Cyanides; CN
- ___ Lead; Pb
- ___ Mercury; Hg
- ___ Nickel; Ni
- ___ Selenium; Se
- ___ Silver; Ag
- ___ Thallium; Tl
- ___ Zinc; Zn

B. **TOXIC ORGANICS: ETHERS**

- ___ Ether, bis(2-chloroethyl)
- ___ Ether, bis(2-chloroisopropyl)
- ___ Ether, 2-chloroethyl vinyl
- ___ Ether, 4-chlorophenyl phenyl
- ___ Ether, 4-bromophenyl phenyl
- ___ Bis (2-chloroethoxy) methane

C. **TOXIC ORGANICS: PHTHALATES**

- ___ Phthalate, dimethyl; DMP
- ___ Phthalate, diethyl; DEP
- ___ Phthalate, di-n-butyl; DBP
- ___ Phthalate, di-n-octyl; DOP
- ___ Phthalate, bis (2-ethylhexyl); DEHP
- ___ Phthalate, butyl benzyl; BBP

D. **TOXIC ORGANICS: NITROGEN COMPOUNDS**

- ___ Nitrosamine, dimethyl
- ___ Nitrosamine, diphenyl
- ___ Nitrosamine, di-n-propyl
- ___ Benzidine
- ___ Benzidine, 3,3'-dichloro
- ___ Hydrazine, 1,2-diphenyl
- ___ Acrylonitrile

E. **TOXIC ORGANICS: PHENOLS**

- ___ Phenol
- ___ Phenol, 2-chloro
- ___ Phenol, 2,4-dichloro; 2,4-DCP
- ___ Phenol, 2,4,6-trichloro
- ___ Phenol, pentachloro; PCP
- ___ Phenol, 2-nitro
- ___ Phenol, 4-nitro
- ___ Phenol, 2,4-dinitro; 2,4-DNP
- ___ Phenol, 2,4-dimethyl
- ___ m-Cresol, p-chloro
- ___ o-Cresol, 4,6-dinitro; DNOC

F. **TOXIC ORGANICS: AROMATICS**

- ___ Benzene
- ___ Benzene, chloro
- ___ Benzene, 1,2-dichloro

- ___ Benzene, 1,3-dichloro
- ___ Benzene, 1,4-dichloro
- ___ Benzene, 1,2,4-trichloro
- ___ Benzene, hexachloro; HCB
- ___ Benzene, ethyl
- ___ Benzene, nitro
- ___ Toluene
- ___ Toluene, 2,4-dinitro; DNT
- ___ Toluene, 2,6-dinitro

G. **TOXIC ORGANICS: POLYNUCLEAR AROMATIC HYDROCARBONS**

- ___ 2-Chloronaphthalene
- ___ Benzo (a) anthracene
- ___ Benzo (b) fluoranthene; B(b)F
- ___ Benzo (k) fluoranthene; B(k)F
- ___ Benzo (a) pyrene; BaP
- ___ Ideno (1,2,3-cd) pyrene; IP

TABLE 1 (CONTINUED)

- ___ Dibenzo (a,h) anthracene; DBA
- ___ Benzo (ghi) perylene
- ___ Acenaphthene
- ___ Acenaphthythylene
- ___ Anthracene
- ___ Chrysene
- ___ Fluoranthene
- ___ Fluorene
- ___ Naphthalene
- ___ Phenanthrene
- ___ Pyrene

H. **TOXIC ORGANICS: PCB'S**

- ___ PCB-1016; Arochlor 1016
- ___ PCB-1221; Arochlor 1221
- ___ PCB-1232; Arochlor 1232
- ___ PCB-1242; Arochlor 1242
- ___ PCB-1248; A4ochlor 1248
- ___ PCB-1254; Arochlor 1254
- ___ PCB-1260; Arochlor 1260

I. **TOXIC ORGANICS: HALOGENATED HYDROCARBONS HALOGENATED ALIPHATICS**

- ___ Methane, Chloro; Methyl chloride
- ___ Methane, Dichloro; Methylene chloride
- ___ Methane, trichloro; Chloroform
- ___ Methane, tetrachloro; Carbon tetrachloride
- ___ Ethane, chloro
- ___ Ethane, 1,1-dichloro
- ___ Ethane, 1,2-dichloro
- ___ Ethane, 1,1,1-trichloro
- ___ Ethane, 1,1,2-trichloro
- ___ Ethane, 1,1,2,2-tetrachloro
- ___ Ethane, hexachloro
- ___ Ethene, chloro; Vinyl chloride
- ___ Propane, 1,2-dichloro
- ___ Propene, 1,3-dichloro
- ___ Butadiene, hexachloro; HCBD
- ___ Cyclopentadiene, hexachloro: HCCPD



Bruce Carter Associates, L.L.C.
ENVIRONMENTAL CONSULTANTS
AIR • WATER • SOLID WASTE • OSHA • REMEDIATION SERVICES

January 21, 2009

City of Elkhart
Public Works & Utilities Administration
ATTN: PRETREATMENT OFFICE
1201 S. Nappanee Street
Elkhart, IN 46516

2nd half
2008

RE: Zurn PEX, LLC – Permit # 96-01
Self – Monitoring Report for July 2008 thru December 2008

To Whom It May Concern:

Please find the enclosed self-monitoring report for Zurn PEX, LLC.

If you should have any questions, please feel free to call me at 574-522-1019 ext 130.

Best regards,
Bruce Carter Associates, LLC.

Scott Schneider
Environmental Scientist

Cc: James Konzel, Zurn PEX, LLC

6330 E. 75th St., Suite 150
Indianapolis, IN 46250
Phone (317) 578-4233
Fax (317) 578-4250

e-mail: bca@bcaconsultants.com

616 S. 4th St.
Elkhart, IN 46516
Phone (574) 522-1019
Fax (574) 522-0374

(800) 291-1019

ZURN00145

SELF-MONITORING REPORT

COVER PAGE

Industry Name: Zurn PEX, LLC

Permit Number: 96-01

Checklist of Enclosures

This report includes the following information:

- ☒ *Industrial User Sampling Event Report*
- ☒ Copy of the analysis report from the respective laboratory, with pertinent required information, including:
 - ☒ Analytical results
 - ☒ Sample type (Grab or Composite)
 - ☒ Sample dates and times
 - ☒ Method of analysis
 - ☒ Analyst's initials
 - ☒ Date and time of analysis
 - ☒ Preservation
 - ☒ Container type (glass or plastic)
- ☒ *Report Certification Statement*
- ☒ *Industrial User Process Report*

Compliance Evaluation

Indicate the compliance status of your company based on the information contained in this report:

This company is: ☒ **in compliance**

☐ **out of compliance**

If the company is "out of compliance", indicate below if the POTW or Pretreatment Office was notified:

☐ **Yes** Date: _____ Time: _____

Industrial Rep's Name: _____

Utility Rep's Name: _____

☐ **No**

REPORT CERTIFICATION STATEMENT

All reports submitted to the City must include the following certification statement, signed by an Authorized Representative.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for the gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

James Konzel
Name of Authorized Representative

Operations Manager
Title

James Konzel
Signature of Authorized Representative

1-21-09
Date

INDUSTRIAL USER PROCESS REPORT

Industry Name: Zurn PEX, LLC

Date Report Submitted: 01/21/2009

Reporting Period: 07-01-08 thru 12-31-08

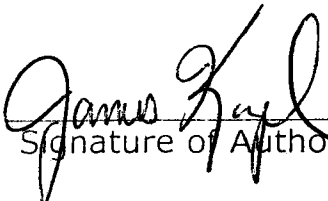
	Process (batch)	Total
Average Daily Flow (gpd)	<u>500</u>	<u>500</u>
Maximum Daily Flow (gpd)	<u>500</u>	<u>500</u>
Estimated 30 min. peak flow	<u>50</u>	<u>50</u>

Maximum pH (S.U.)*	<u>7.34</u>	<u>7.34</u>
Minimum pH (S.U.)*	<u>7.34</u>	<u>7.34</u>

* Indicate if these are ☒ **End of Pipe** OR ☐ **End of Process** values.

James Konzel
Name of Authorized Representative

Operations Manager
Title


Signature of Authorized Representative

1-21-09
Date

Revised 727/07

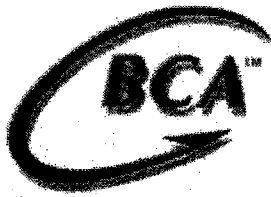
ZURN00148



EPA Method 150.1

pH Benchsheet

Date: 12/11/2008	Analyst: Scott Schneider			
Sample ID	Sample Date/Time	Analysis Time	Sample Temp. °F °F = (°C x 1.8) + 32	pH
pH 7.00 buffer				7.01
pH 4.01 buffer				4.00
pH 10.01 buffer				10.04
pH 7.00 buffer reads				7.00
Effluent pH	12/12/08 @10:50 AM	10:55 AM	40.6°F	7.34
Outfall 001 Observation :				



Bruce Carter Associates, L.L.C.

ENVIRONMENTAL CONSULTANTS

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Analysis Report

Client: Zum PEX, LLC
Project : Zum PEX, LLC – Monthly Analysis

Collection Date:	6/12/08	Preservation:	None
Collection Time:	10:50 AM	Container Type:	Plastic
Lab ID #:	L-0021		
Sample ID:	End of Pipe Grab		
Matrix:	Waste Water		

Analysis	Method	Result	Units	Analysis Date/Time	Analyst
pH	EPA 150.1	7.34	s.u.	12/11/2008 @ 10:55AM	SRS

Field Comments: Analysis was performed at the control manhole using a portable pH meter. (SRS)

6330 E. 75th St., Suite 150
Indianapolis, IN 46250
Phone (317) 578-4233
Fax (317) 578-4250

616 S. 4th St.
Elkhart, IN 46516
Phone (574) 522-1019
Fax (574) 522-0374

e-mail: bca@consultants.com

(800) 291-1019

ZURN00150

INDUSTRIAL USER SAMPLING EVENT REPORT

Industry Name: Zurn PEX, LLC

Permit #: 96-01

Sampler Name(s): Scott Schneider

Sample Type:

☐ **Grab:** Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐

Individual sample collected over a period of time not exceeding fifteen minutes.

☒ **Composite:** Start: Month December Day 11 Year 2008 Time 9:00 am ☒ pm ☐

End: Month December Day 11 Year 2008 Time 3:00 am ☐ pm ☒

Composite Method:

☒ Manual

☐ Automatic Sampler

☐ **Flow Proportional:** Sample collected every _____ gallons

Minimum of four grab samples collected over a time greater than fifteen minutes and combined in proportion to the wastewater flow

☒ **Time Proportional:** Time Interval 2 hours Number Combined 4

Minimum of four grab samples of equal volume collected over a time greater than fifteen minutes that is representative of the discharge

Location of Event: ☐ End of Process or Pretreatment

☒ End of Pipe

Samples in Proper Containers? ☒ Yes ☐ No

Samples Properly Preserved?* ☒ Yes ☐ No

*specific information shall be included with the chain of custody

Chain of Custody:

Date	Relinquished By	Received By	Time
12/11/2008	Scott Schneider	Lauren Pecina	3:30 PM

Please include the original laboratory report(s).

Revised 7/27/07

ZURN00151

INDUSTRIAL USER SAMPLING EVENT REPORT

Industry Name: Zurn PEX, LLC

Permit #: 96-01

Sampler Name(s): Scott Schneider

Sample Type:

☒ **Grab:** Month December Day 11 Year 2008 Time 10:40 am ☒ pm ☐

Individual sample collected over a period of time not exceeding fifteen minutes.

☐ **Composite:** Start: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐
End: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐

Composite Method:

☐ Manual

☐ Automatic Sampler

☐ **Flow Proportional:** Sample collected every _____ gallons

Minimum of four grab samples collected over a time greater than fifteen minutes and combined in proportion to the wastewater flow

☐ **Time Proportional:** Time Interval _____ Number Combined _____

Minimum of four grab samples of equal volume collected over a time greater than fifteen minutes that is representative of the discharge

Location of Event: ☐ End of Process or Pretreatment

☒ End of Pipe

Samples in Proper Containers? ☒ Yes ☐ No

Samples Properly Preserved?* ☒ Yes ☐ No

*specific information shall be included with the chain of custody

Chain of Custody:

Date	Relinquished By	Received By	Time
12/11/2008	Scott Schneider	Lauren Pecina	3:30 PM

Please include the original laboratory report(s).

Revised 7/27/07

ZURN00152

INDUSTRIAL USER SAMPLING EVENT REPORT

Industry Name: Zurn PEX, LLC Permit #: 96-01

Sampler Name(s): Scott Schneider

Sample Type:

☒ **Grab:** Month December Day 11 Year 2008 Time 10:45 am ☒ pm ☐

Individual sample collected over a period of time not exceeding fifteen minutes.

☐ **Composite:** Start: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐
End: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐

Composite Method: ☐ Manual
☐ Automatic Sampler

☐ **Flow Proportional:** Sample collected every _____ gallons

Minimum of four grab samples collected over a time greater than fifteen minutes and combined in proportion to the wastewater flow

☐ **Time Proportional:** Time Interval _____ Number Combined _____

Minimum of four grab samples of equal volume collected over a time greater than fifteen minutes that is representative of the discharge

Location of Event: ☐ End of Process or Pretreatment

☒ End of Pipe

Samples in Proper Containers? ☒ Yes ☐ No

Samples Properly Preserved?* ☒ Yes ☐ No

**specific information shall be included with the chain of custody*

Chain of Custody:

Date	Relinquished By	Received By	Time
12/11/2008	Scott Schneider	Lauren Pecina	3:30 PM

Please include the original laboratory report(s).

Revised 7/27/07

ZURN00153

INDUSTRIAL USER SAMPLING EVENT REPORT

Industry Name: Zurn PEX, LLC Permit #: 96-01

Sampler Name(s): Scott Schneider

Sample Type:

☒ **Grab:** Month December Day 11 Year 2008 Time 10:50 am ☒ pm ☐

Individual sample collected over a period of time not exceeding fifteen minutes.

☐ **Composite:** Start: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐
End: Month _____ Day ____ Year _____ Time _____ am ☐ pm ☐

Composite Method: ☐ Manual
☐ Automatic Sampler

☐ **Flow Proportional:** Sample collected every _____ gallons

Minimum of four grab samples collected over a time greater than fifteen minutes and combined in proportion to the wastewater flow

☐ **Time Proportional:** Time Interval _____ Number Combined ____

Minimum of four grab samples of equal volume collected over a time greater than fifteen minutes that is representative of the discharge

Location of Event: ☐ End of Process or Pretreatment

☒ End of Pipe

Samples in Proper Containers? ☒ Yes ☐ No

Samples Properly Preserved?* ☒ Yes ☐ No

**specific information shall be included with the chain of custody*

Chain of Custody:

Date	Relinquished By	Received By	Time
12/11/2008	Scott Schneider	Lauren Pecina	3:30 PM

Please include the original laboratory report(s).

Revised 7/27/07

ZURN00154



2121 E. Washington Blvd.
Fort Wayne Indiana 46803
260-471-7000

JAN - 8 2009

Lauren Pecina
BRUCE CARTER & ASSOCIATES, L.L.C.
616 South 4th Street
ELKHART, IN 46516
TEL: (800) 291-1019
FAX (574) 522-0374

January 06, 2009
Order No.: F08120915

RE: ZURN Effluent Testing

Dear Lauren Pecina:

Sherry Laboratories received 3 samples on 12/12/2008 for the analyses presented in the following report.

In accordance with your instructions, Sherry Laboratories conducted the analysis on samples submitted by your company. The results relate only to the items tested. Unless otherwise noted, all analysis was conducted using EPA approved methodologies. Subcontracted tests are indicated by "SUB" as the analyst. All relevant sampling information is on the attached chain-of-custody form. Certifications/Accreditations: IN# C-02-03 IN# M-02-05

If you have any questions regarding these tests results, please feel free to call.

It is the policy of Sherry Laboratories to retain all documents for seven years. If a copy of a report is needed, it will be available during this retention period at \$10 per copy.

This report contains 9 pages.

Approved By: 

ZURN00155



2121 E. Washington Blvd.
Fort Wayne Indiana 46803
260-471-7000

TESTING TODAY, PROTECTING TOMORROW

WWW.SHERRYLABS.COM

Fax: 260-471-7777

CLIENT: BRUCE CARTER & ASSOCIATES, L.L.

Lab Order: F08120915

Date Received: 12/12/2008

Project: ZURN Effluent Testing

Date Reported: 06-Jan-09

Lab ID: F08120915-01 Collection Date: 12/11/2008 10:45:00 A Sample ID: Effluent Grab

Matrix: WASTE WATER

<u>Analyses</u>	<u>Result</u>	<u>Detection</u> <u>Limit</u>	<u>Qual</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
OIL AND GREASE, TOTAL	E1664A					BJF
Oil & Grease, Total	6.7	5.0		ppm	12/30/2008	

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	MI+ - Matrix Interference
	* - Value exceeds MCL or Permit Limitation	H - Exceeds Holding Time

Page 1 of 5

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260-471-7000

TESTING TODAY, PROTECTING TOMORROW

WWW.SHERRYLABS.COM

Fax: 260-471-7777

CLIENT: BRUCE CARTER & ASSOCIATES, L.L.

Lab Order: F08120915

Date Received: 12/12/2008

Project: ZURN Effluent Testing

Date Reported: 06-Jan-09

Lab ID: F08120915-02 Collection Date: 12/11/2008 10:40:00 A Sample ID: Effluent Grab

Matrix: WASTE WATER

<u>Analyses</u>	<u>Result</u>	<u>Detection</u> <u>Limit</u>	<u>Qual</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Analyst</u>
SEMI-VOLATILE ORGANIC COMPOUNDS	E625					SUB
1,2,4-Trichlorobenzene	ND	10		ppb	12/29/2008 3:26:00	
1,2-Dichlorobenzene	ND	10		ppb	12/29/2008 3:26:00	
1,2-Diphenylhydrazine	ND	10		ppb	12/29/2008 3:26:00	
1,3-Dichlorobenzene	ND	10		ppb	12/29/2008 3:26:00	
1,4-Dichlorobenzene	ND	10		ppb	12/29/2008 3:26:00	
2,4,6-Trichlorophenol	ND	10		ppb	12/29/2008 3:26:00	
2,4-Dichlorophenol	ND	10		ppb	12/29/2008 3:26:00	
2,4-Dimethylphenol	ND	10		ppb	12/29/2008 3:26:00	
2,4-Dinitrophenol	ND	50		ppb	12/29/2008 3:26:00	
2,4-Dinitrotoluene	ND	10		ppb	12/29/2008 3:26:00	
2,6-Dinitrotoluene	ND	10		ppb	12/29/2008 3:26:00	
2-Chloronaphthalene	ND	10		ppb	12/29/2008 3:26:00	
2-Chlorophenol	ND	10		ppb	12/29/2008 3:26:00	
2-Nitrophenol	ND	10		ppb	12/29/2008 3:26:00	
3,3'-Dichlorobenzidine	ND	20		ppb	12/29/2008 3:26:00	
4,4'-DDD	ND	50		ppb	12/29/2008 3:26:00	
4,4'-DDE	ND	50		ppb	12/29/2008 3:26:00	
4,4'-DDT	ND	50		ppb	12/29/2008 3:26:00	
4,6-Dinitro-2-methylphenol	ND	50		ppb	12/29/2008 3:26:00	
4-Bromophenyl phenyl ether	ND	10		ppb	12/29/2008 3:26:00	
4-Chloro-3-methylphenol	ND	20		ppb	12/29/2008 3:26:00	
4-Chlorophenyl phenyl ether	ND	10		ppb	12/29/2008 3:26:00	
4-Nitrophenol	ND	50		ppb	12/29/2008 3:26:00	
Acenaphthene	ND	10		ppb	12/29/2008 3:26:00	
Acenaphthylene	ND	10		ppb	12/29/2008 3:26:00	
Aldrin	ND	50		ppb	12/29/2008 3:26:00	
alpha-BHC	ND	50		ppb	12/29/2008 3:26:00	
Anthracene	ND	10		ppb	12/29/2008 3:26:00	
Aroclor 1016	ND	50		ppb	12/29/2008 3:26:00	
Aroclor 1221	ND	50		ppb	12/29/2008 3:26:00	
Aroclor 1232	ND	50		ppb	12/29/2008 3:26:00	
Aroclor 1242	ND	50		ppb	12/29/2008 3:26:00	
Aroclor 1248	ND	50		ppb	12/29/2008 3:26:00	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank MI+ - Matrix Interference
* - Value exceeds MCL or Permit Limitation H - Exceeds Holding Time

Page 2 of 5

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ZURN00157



2121 E. Washington Blvd.
Fort Wayne Indiana 46803
260-471-7000

TESTING TODAY, PROTECTING TOMORROW

WWW.SHERRYLABS.COM

Fax: 260-471-7777

CLIENT: BRUCE CARTER & ASSOCIATES, L.L.

Lab Order: F08120915

Date Received: 12/12/2008

Project: ZURN Effluent Testing

Date Reported: 06-Jan-09

Aroclor 1254	ND	50	ppb	12/29/2008 3:26:00
Aroclor 1260	ND	50	ppb	12/29/2008 3:26:00
Benz(a)anthracene	ND	10	ppb	12/29/2008 3:26:00
Benzidine	ND	50	ppb	12/29/2008 3:26:00
Benzo(a)pyrene	ND	10	ppb	12/29/2008 3:26:00
Benzo(b)fluoranthene	ND	10	ppb	12/29/2008 3:26:00
Benzo(g,h,i)perylene	ND	10	ppb	12/29/2008 3:26:00
Benzo(k)fluoranthene	ND	10	ppb	12/29/2008 3:26:00
beta-BHC	ND	50	ppb	12/29/2008 3:26:00
Bis(2-chloroethoxy)methane	ND	10	ppb	12/29/2008 3:26:00
Bis(2-chloroethyl)ether	ND	10	ppb	12/29/2008 3:26:00
Bis(2-chloroisopropyl)ether	ND	10	ppb	12/29/2008 3:26:00
Bis(2-ethylhexyl)phthalate	ND	10	ppb	12/29/2008 3:26:00
Butyl benzyl phthalate	ND	10	ppb	12/29/2008 3:26:00
Chlordane	ND	50	ppb	12/29/2008 3:26:00
Chrysene	ND	10	ppb	12/29/2008 3:26:00
delta-BHC	ND	50	ppb	12/29/2008 3:26:00
Di-n-butyl phthalate	ND	10	ppb	12/29/2008 3:26:00
Di-n-octyl phthalate	ND	10	ppb	12/29/2008 3:26:00
Dibenz(a,h)anthracene	ND	10	ppb	12/29/2008 3:26:00
Dieldrin	ND	50	ppb	12/29/2008 3:26:00
Diethyl phthalate	ND	10	ppb	12/29/2008 3:26:00
Dimethyl phthalate	ND	10	ppb	12/29/2008 3:26:00
Endosulfan I	ND	50	ppb	12/29/2008 3:26:00
Endosulfan II	ND	50	ppb	12/29/2008 3:26:00
Endosulfan sulfate	ND	50	ppb	12/29/2008 3:26:00
Endrin	ND	50	ppb	12/29/2008 3:26:00
Endrin aldehyde	ND	50	ppb	12/29/2008 3:26:00
Fluoranthene	ND	10	ppb	12/29/2008 3:26:00
Fluorene	ND	10	ppb	12/29/2008 3:26:00
gamma-BHC	ND	50	ppb	12/29/2008 3:26:00
Heptachlor	ND	50	ppb	12/29/2008 3:26:00
Heptachlor epoxide	ND	50	ppb	12/29/2008 3:26:00
Hexachlorobenzene	ND	10	ppb	12/29/2008 3:26:00
Hexachlorobutadiene	ND	10	ppb	12/29/2008 3:26:00
Hexachlorocyclopentadiene	ND	10	ppb	12/29/2008 3:26:00
Hexachloroethane	ND	10	ppb	12/29/2008 3:26:00
Indeno(1,2,3-cd)pyrene	ND	10	ppb	12/29/2008 3:26:00
Isophorone	ND	10	ppb	12/29/2008 3:26:00
Methoxychlor	ND	50	ppb	12/29/2008 3:26:00

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds MCL or Permit Limitation

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
MI+ - Matrix Interference
H - Exceeds Holding Time

Page 3 of 5

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ZURN00158



2121 E. Washington Blvd.
Fort Wayne Indiana 46803
260-471-7000

TESTING TODAY, PROTECTING TOMORROW

WWW.SHERRYLABS.COM

Fax: 260-471-7777

CLIENT: BRUCE CARTER & ASSOCIATES, L.L.

Lab Order: F08120915

Date Received: 12/12/2008

Project: ZURN Effluent Testing

Date Reported: 06-Jan-09

N-Nitrosodi-n-propylamine	ND	10	ppb	12/29/2008 3:26:00
N-Nitrosodimethylamine	ND	10	ppb	12/29/2008 3:26:00
N-Nitrosodiphenylamine	ND	20	ppb	12/29/2008 3:26:00
Naphthalene	ND	10	ppb	12/29/2008 3:26:00
Nitrobenzene	ND	10	ppb	12/29/2008 3:26:00
Pentachlorophenol	ND	50	ppb	12/29/2008 3:26:00
Phenanthrene	ND	10	ppb	12/29/2008 3:26:00
Phenol	ND	10	ppb	12/29/2008 3:26:00
Pyrene	ND	10	ppb	12/29/2008 3:26:00
Toxaphene	ND	50	ppb	12/29/2008 3:26:00
Surr: 2,4,6-Tribromophenol	75.4	10-123	%REC	12/29/2008 3:26:00
Surr: 2-Fluorobiphenyl	56.6	43-116	%REC	12/29/2008 3:26:00
Surr: 2-Fluorophenol	39.6	21-110	%REC	12/29/2008 3:26:00
Surr: Nitrobenzene-d5	56.3	35-114	%REC	12/29/2008 3:26:00
Surr: Phenol-d5	32.2	10-110	%REC	12/29/2008 3:26:00
Surr: Terphenyl-d14	88.5	33-141	%REC	12/29/2008 3:26:00

PRIORITY POLLUTANT VOCS

E624

SUB

1,2-Dichlorobenzene	ND	10	ppb	12/23/2008 4:53:00
1,3-Dichlorobenzene	ND	10	ppb	12/23/2008 4:53:00
1,4-Dichlorobenzene	ND	10	ppb	12/23/2008 4:53:00
1,1,1-Trichloroethane	ND	10	ppb	12/23/2008 4:53:00
1,1,2,2-Tetrachloroethane	ND	10	ppb	12/23/2008 4:53:00
1,1,2-Trichloroethane	ND	10	ppb	12/23/2008 4:53:00
1,1-Dichloroethane	ND	10	ppb	12/23/2008 4:53:00
1,1-Dichloroethene	ND	10	ppb	12/23/2008 4:53:00
1,2-Dichloroethane	ND	10	ppb	12/23/2008 4:53:00
1,2-Dichloropropane	ND	10	ppb	12/23/2008 4:53:00
2-Chloroethyl vinyl ether	ND	20	ppb	12/23/2008 4:53:00
Acrolein	ND	100	ppb	12/23/2008 4:53:00
Acrylonitrile	ND	100	ppb	12/23/2008 4:53:00
Benzene	ND	10	ppb	12/23/2008 4:53:00
Bromodichloromethane	ND	10	ppb	12/23/2008 4:53:00
Bromoform	ND	10	ppb	12/23/2008 4:53:00
Bromomethane	ND	20	ppb	12/23/2008 4:53:00
Carbon tetrachloride	ND	10	ppb	12/23/2008 4:53:00
Chlorobenzene	ND	10	ppb	12/23/2008 4:53:00
Chloroethane	ND	20	ppb	12/23/2008 4:53:00
Chloroform	ND	10	ppb	12/23/2008 4:53:00
Chloromethane	ND	20	ppb	12/23/2008 4:53:00

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Lab Order: F08120915

Date Received: 12/12/2008

Project: ZURN Effluent Testing

Date Reported: 06-Jan-09

cis-1,3-Dichloropropene	ND	10	ppb	12/23/2008 4:53:00
Dibromochloromethane	ND	10	ppb	12/23/2008 4:53:00
Ethylbenzene	ND	10	ppb	12/23/2008 4:53:00
Methylene chloride	ND	10	ppb	12/23/2008 4:53:00
Tetrachloroethene	ND	10	ppb	12/23/2008 4:53:00
Toluene	ND	10	ppb	12/23/2008 4:53:00
trans-1,2-Dichloroethene	ND	10	ppb	12/23/2008 4:53:00
trans-1,3-Dichloropropene	ND	10	ppb	12/23/2008 4:53:00
Trichloroethene	ND	10	ppb	12/23/2008 4:53:00
Trichlorofluoromethane	ND	10	ppb	12/23/2008 4:53:00
Vinyl chloride	ND	20	ppb	12/23/2008 4:53:00
Surr: 4-Bromofluorobenzene	97.4	86-115	%REC	12/23/2008 4:53:00
Surr: Dibromofluoromethane	95.6	86-118	%REC	12/23/2008 4:53:00
Surr: Toluene-d8	100	88-110	%REC	12/23/2008 4:53:00

Lab ID: F08120915-03 Collection Date: 12/11/2008

Sample ID: Effluent Composite

Matrix: WASTE WATER

<u>Analyses</u>	<u>Result</u>	<u>Detection Limit</u>	<u>Qual</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Analyst</u>
BOD, 5 DAY, 20°C	M5210 B					SUB
Biochemical Oxygen Demand	75	6.0		mg/L	12/12/2008	
METALS BY ICP FOR WW, TOTALS	E200.7					LER
Cadmium	ND	0.010		ppm	12/18/2008 12:00:0	
Chromium	ND	0.010		ppm	12/18/2008 12:00:0	
Copper	0.334	0.010		ppm	12/18/2008 12:00:0	
Lead	ND	0.060		ppm	12/18/2008 12:00:0	
Nickel	0.016	0.010		ppm	12/18/2008 12:00:0	
Zinc	0.141	0.010		ppm	12/18/2008 12:00:0	
AMMONIA AS N	M4500-NH3 D					SAE
Nitrogen, Ammonia (As N)	4.61	0.100		ppm	12/18/2008	
TOTAL PHOSPHORUS	M4500-P E					DT
Total Phosphorus	31.9	2.00		ppm	12/29/2008 2:10:00	
TOTAL SUSPENDED SOLIDS	M2540 D					SUB
Suspended Solids (Residue, Non-Filterable)	110	2		mg/L	12/16/2008	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
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ZURN00160



SHERRYLABORATORIES
Testing Today - Preserving Tomorrow

Sherry Laboratories - Chain of Custody R d

Laboratory
Number: 108120715

Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page 1 of 1	
BCA		Same				ZURN		Matrix Code	
Lauren Pecina						Sampler's Signature		DW = Drinking Water WW = Waste Water GW = Ground Water AQ = Aqueous SL = Sludge O = Oil F = Food NG = Natural Gas PW = Produced Water CF = Completion Fluid	
Address:									
City, State Zip:									
Phone Number:		574-522-1019 Ext: 120		Ext:					
Fax Number:									
E-mail Address:									

Sample ID/Description	Which Regulations Apply: <input type="checkbox"/> RCRA <input type="checkbox"/> POTW <input type="checkbox"/> NPDES <input type="checkbox"/> USDA/FDA <input type="checkbox"/> RECAP/RISC	Turn Time <input type="checkbox"/> Standard <input checked="" type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	Collection Information		(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Container		Pres.	Requested Tests										Comments		
			Date	Time		Grab / Composite	Matrix		Quantity	Type P=Plastic, G=Glass, V=Vial											
Effluent 1a			12/11/08	10:45	G	WW	1	G	H2SO4	X											*Cd, Cr, Cu
2a			12/11/08	10:40	G	WW	3	16 ZV Wenc, HCl													Pb, Ni, Zn
3a			12/11/08		C	WW	1	P	NONE												BOD, TSS
			12/11/08		C	WW	1	P	H2SO4												run in
			12/11/08		C	WW	1	P	HNO3												South Bend

Relinquished by	Date/Time	Received by	Date/Time	Field Notes
1 Scott FENWELDER	12/11/08 / 3:30 PM	Lauren Pecina	12/11/08 / 3:30 PM	
2 Lauren Pecina	12/11 / 9:26 AM	Dan Sherr	12/11/08 / 16:20	Received at lab on ice? NOT <input type="checkbox"/> Yes <input type="checkbox"/> No Temp: TOLKEN
3				

All samples submitted to Sherry Laboratories for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples.

Sherry Laboratories reserves the right to return unused sample portions.

9301 Innovation Drive, Suite 125
PO Box 569
Daleville, IN 47334-0569
765-378-4103
Fax: 765-378-4109

629 Washington St.
Suite 300
Columbus, IN 47201
812-375-0531
Fax: 812-375-0731

560 South Zimmer Road
P.O. Box 1849
Warsaw, IN 46381-1849
574-267-3305
Fax: 574-269-6569

2417 W. Pinhook Rd
Lafayette, LA 70508
337-232-3568
Fax: 337-232-3621

Sherry Laboratories - Chain of Custody Record

SHERRY Laboratories
Laboratory Number: E0812-140

Client Information:		Billing Information:		PO Number:		Project Name/Number:		Page of	
S.A.		Same				ZURN		Matrix Code	
Lauren Pereira						Sampler's Signature		DW - Drinking Water WW - Waste Water GW - Ground Water AQ - Aqueous SL - Sludge O - Oil P - Pesticide NG - Natural Gas NL - Natural Gas Liquid PW - Produced Water CT - Completion Fluid	
574-522-1019 Ext: 120		Ext:		Bill Monthly		Shipping Method:			
				<input type="checkbox"/> Yes		DHL / Sherry / Hand / Mail			
				<input type="checkbox"/> No					

Sample ID/Description	Which Regulations Apply:			Turn Time <input type="checkbox"/> Standard <input type="checkbox"/> RUSH <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> Other	(Rush turn times will incur a surcharge and must be pre-approved by lab.)	Quantity	Container Type P=Plastic, G=Glass, V=Vial	Pres. HCL, HNO ₃ , H ₂ SO ₄ , NaOH, Na ₂ SO ₄ , Na ₂ CO ₃ , H ₂ O ₂	Requested Tests	Comments
	Collection Information									
	Date	Time	Grab / Composite							
Effluent	12/11/08	12:05	G	WW	1	G	H ₂ SO ₄			
	12/11/08	1:40	G	WW	3	16.2V	NONE			
	12/11/08		C	WW	1	P	H ₂ SO ₄			
	12/11/08		C	WW	1	P	H ₂ SO ₄			
	12/11/08		C	WW	1	P	H ₂ NO ₃			

Relinquished by	Date/Time	Received by	Date/Time	Field Notes:
Scott Pines	12/11/08 3:30 PM	Lauren Pereira	12/11/08 3:50 PM	
Lauren Pereira	12/11 9:26 AM	Dan Shave	12/11/08 16:26	Received at lab on ice? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Temp: 1°C
			12/16/08 1110	

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